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ONLINE TODAY

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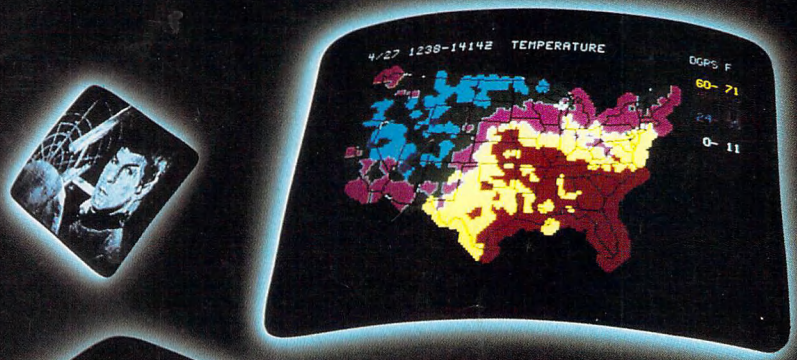

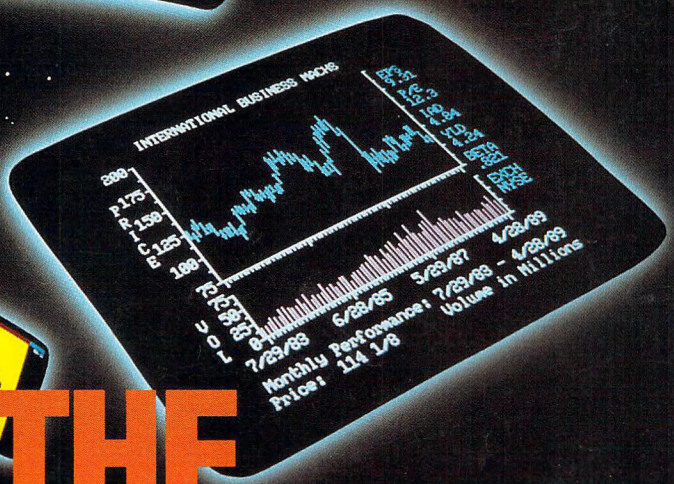

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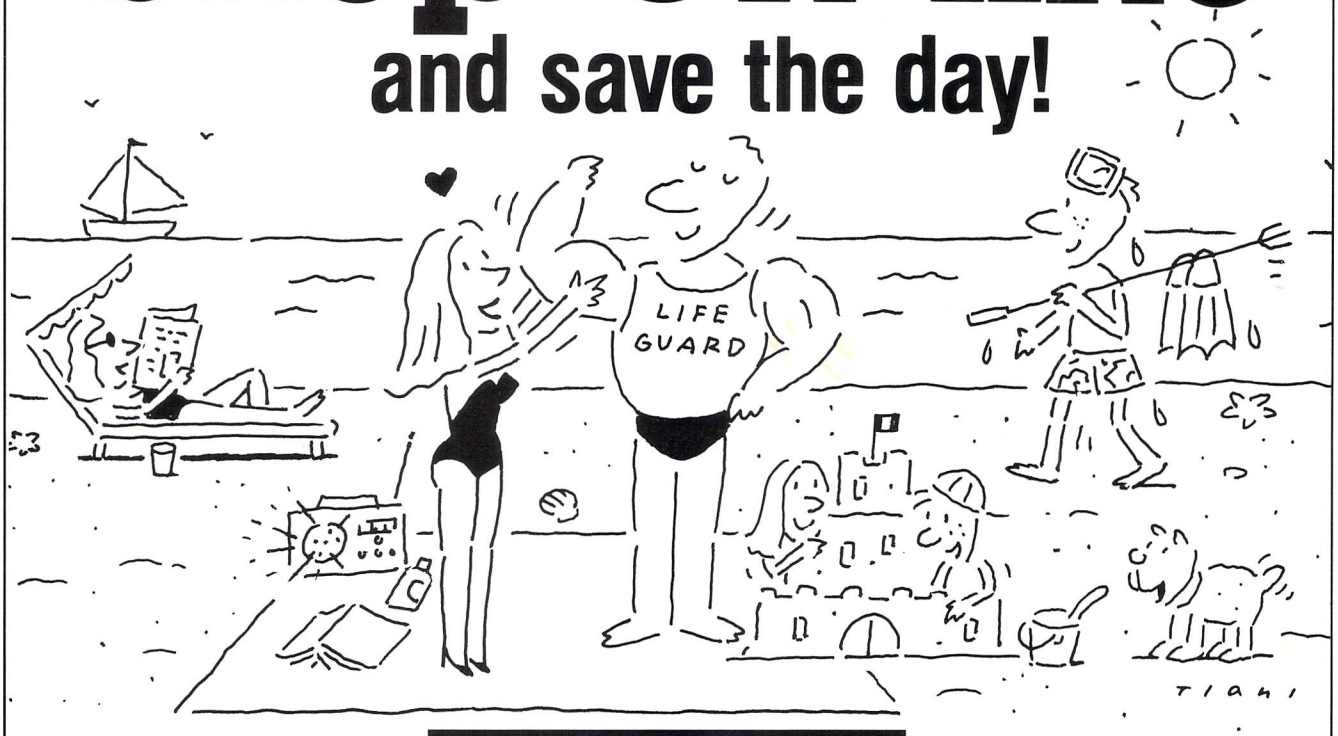

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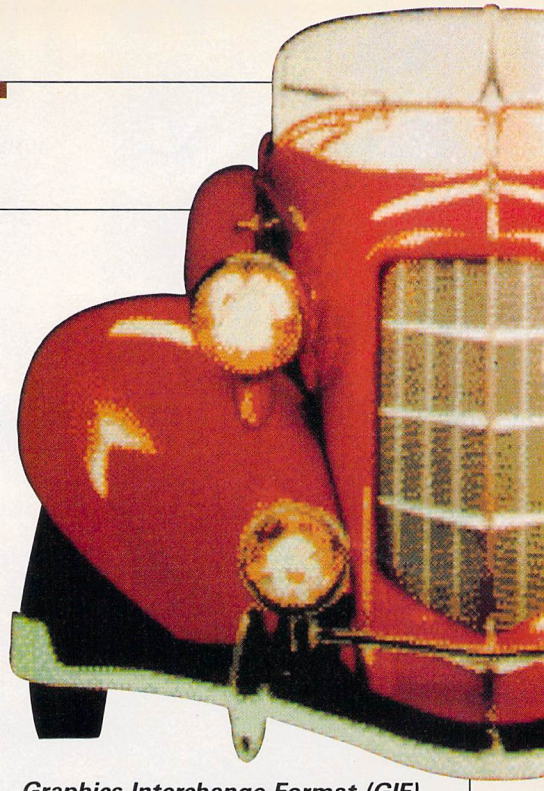

COMPUTING SERVICES

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Computer graphics have come a long way, but much is owed to increased hardware capabilities and user interfaces. While debates continue on the need and value of a universal graphics standard, CompuServe provides three, enabling users with varying levels of hardware capability to access and view graphics files.

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Too Hot to Print

Catch computer industry news as it happens, keep up with online events, read special reports, commentary and more product reviews. You'll find it only in *Online Today Daily Edition*, a daily-updated newspaper full of information that's too hot to print. GO OLT.

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Special Reports	**OLT-2000**
Today's Daily News	**OLT-90**

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LETTERS

Help for Minorities

I was disappointed to see the article "Help for Minorities to Succeed in Careers" in *Online Today* (March issue, page 6). The description—and, in fact, the very name—of the National Science Foundation's Comprehensive Regional Centers for Minorities makes it abundantly clear that the targeting of the Centers' programs is blatantly racist, favoring people who are deemed to possess "minority" status.

It is neither legitimate nor Constitutional for the government to offer programs that "will be specifically targeted at minority students" or at "majority" students for that matter. Your granting the government publicity, in a way that is favorable to its unwarranted actions, only serves to encourage the racist elements of our government.

Gary McGath
Hollis, N.H.

Trade and Industry Database

The free access (during March) to the Trade and Industry Database through IQuest was a terrific opportunity. I used it to achieve two purposes. First, I am doing research for my 12th grade Business Administration class on "Drug Testing in the Workplace." Also, I am showing my 11th and 12th grade Computer Applications classes how to do research online. It is a great service to me and my students.

W. Rodney Stone
Doylestown, Pa.

Online Today New Member pages

I am a new CompuServe member and just received my first print edition of *Online Today*. It was extremely helpful, especially the supplemental pages for new members. It has already helped me appreciate the many different services available. I cannot wait until I receive my future editions.

Thank you for all the hints and tips. Keep up the good work.

Irv Wolper
Arlington, Va.

Executive Option

I noticed the article, "Executive Option Open" (March issue, page 10).

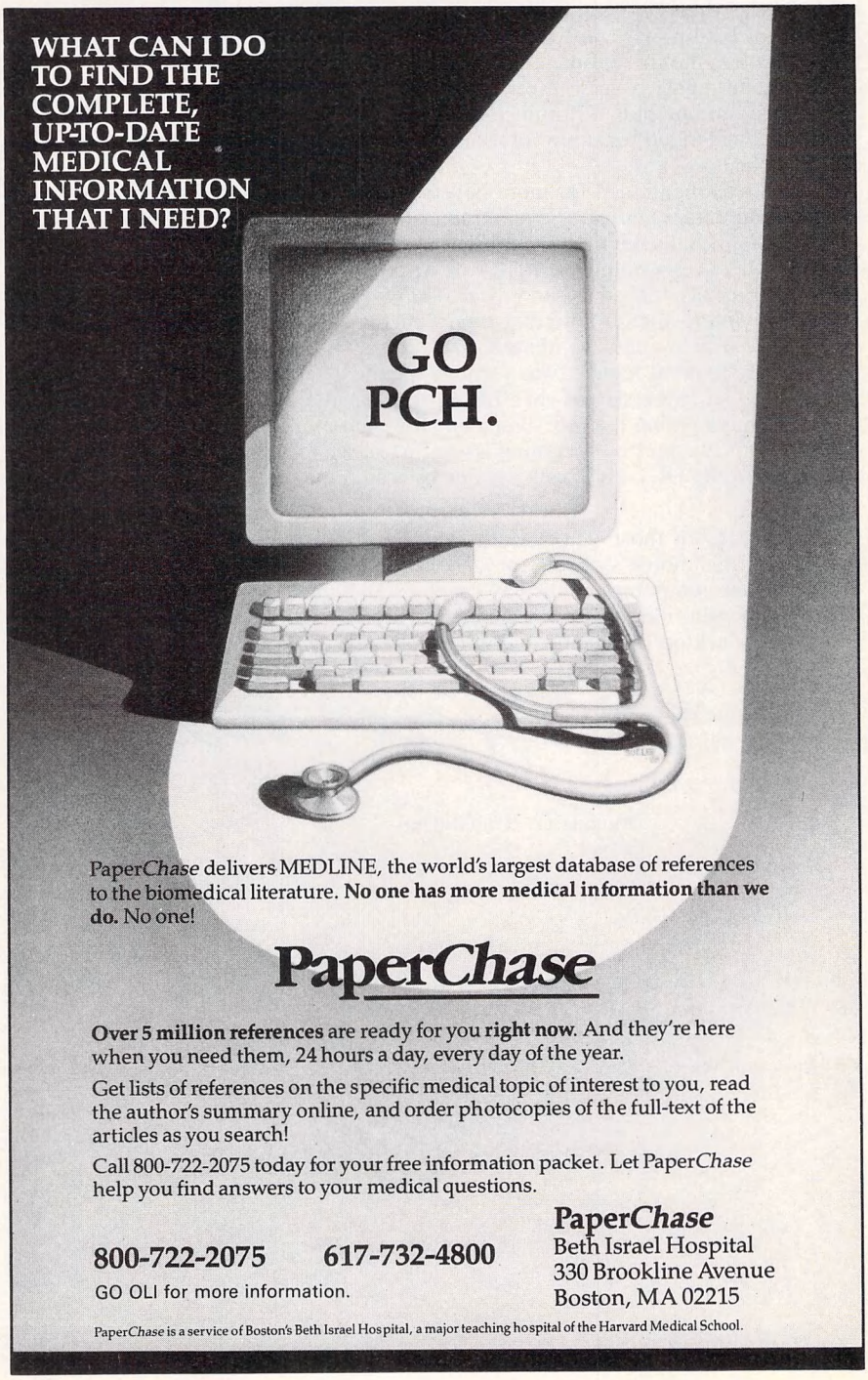
I am an Executive Option member and I use some of the services, but I read it anyway to see if there might be something new or different.

As I glanced through the listing, I was surprised to see that you did not mention the cost of using these services. Some of them have rather steep surcharges that would be unexpected to someone who decided to "try it out." True, you do mention that these surcharges exist. Still, you should always give specific pricing for surcharged products.

Kim L. Serkes
San Francisco, Calif.

Talk to Us

Online Today Daily Edition has a Feedback area for letters to the editor. Simply type GO OLT-33 from any prompt in the CompuServe Information Service.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DEAR READER

Thanks to the readers who responded to *Online Today's* survey last November and December. Here are a few highlights:

As expected, most open the magazine "to get more out of CompuServe," and this theme appeared frequently in the results. Many left requests for more innovative ideas, tips and shortcuts on how to use CompuServe more efficiently. A typical response: "I look for new ideas on how I can use CompuServe. The magazine encourages me to try new things."

When asked about special editorial inserts such as those developed for IBM and Macintosh users, three-fourths said they look for articles containing tips on using CompuServe. About 40 percent have received the IBM insert, 30 percent the New Member insert and 16 percent the Macintosh insert. Those receiving special inserts rated them as "good or excellent" and would like to receive inserts monthly or bimonthly. Hardware-specific, regional computing news and personal investing were the three topics most recommended for future inserts.

Nearly all regularly read tutorial articles, and most rated tutorials as "important and helpful." Forums and news/reference services were the main topics recommended for more tutorials. Several suggested tutorials on uploading and downloading files.

Topic areas mentioned for more coverage include computing services, forums, hobbies and entertainment. Several requested more hardware/software reviews and more editorial attention for non-IBM machines. At the same time, more than half of readers responding used IBM, IBM-compatible or Tandy computers.

A majority also asked for an index to *Online Today* articles from previous issues. It's interesting to note that three-fourths of our readers either save the entire issue or clip and save items for reference.

Another frequent request was for an expanded "Uploads" column, including more files, listing the size of each file to allow members to estimate downloading time, and highlighting the top 10 uploads for each month.

Watch for changes in upcoming issues. Meanwhile, your letters are always welcome via the OLT Feedback area or by traditional mail.

* * *

Meanwhile, for those who asked for more articles about online graphics, see page 18 for this month's cover story, "Get the Picture: Focus on Graphics." Wondering if your computer can display graphics and what kinds of graphics files are available? You'll find the answer here, plus related articles about applications of graphics in desktop publishing and in *Online Today Daily Edition's* product reviews.

Douglas G. Branstetter
Editor

ONLINE TODAY

***Online Today*®, June 1989**
Volume 8 Number 6

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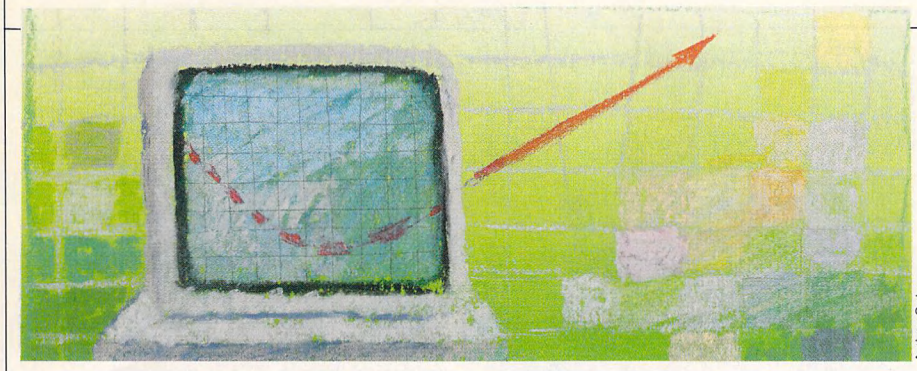


Artists Only

Computer Prices—Out of Range?

As computers become faster and more potent, prices are going up.

For example, Intel is planning to sell the 80486-based chip for about $1,500 apiece. Industry analysts estimate that complete computers based on the device will cost about $10,000.

But the situation is not altogether gloomy. Wayne Day, forum administrator of CompuServe's Tandy Users Network (GO TANDYNET), suggests that users can compensate for higher prices by using smaller machines to emulate more powerful systems, albeit at slower processing speeds. "The Tandy Color Computer, a little 8-bit machine, is capable of multitasking and multiprocessing using sophisticated and widely accepted operating systems," he says, adding that the Color Computer today costs only about 25 percent of its 1981 price.

Some users are reacting to the trend toward higher prices by adding low-end microcomputers to their high-end microcomputer or minicomputer installations. California's Clovis Unified School District, for instance, has used a Digital Equipment Corp. VAX minicomputer for several years. But, like most institutional users, the district recently faced soaring computing demands that outstripped funding increases. Buying another minicomputer or adding a second microcomputer-based network was out of the question, so the district decided to replace many of its existing "dumb" terminals with Apple Macintoshes.

"The Macs work like a pressure valve that allows users to access the VAX, but the Macs' local processing handles many applications such as word processing and spreadsheets. As a result, we've taken a great deal of the load away from the VAX," says Chuck Phillips, the district's educational technology director.

The Clovis district, which is in the central San Joaquin Valley, selected Macs because they're easier to train users on than IBM-type personal computers.

"Bringing the Macs on-board has given us more flexibility with our computer resources, providing our users with the best of two computer worlds."

Higher computer prices are likely to occur throughout the 1990s. How companies and individuals cope with this trend may be one of the major stories of the decade.

A Light in the Darkness

Amnesty International, a worldwide, non-governmental movement, is working for the release of prisoners of conscience and an end to torture and executions in all nations by coordinating letter-writing campaigns on behalf of the oppressed.

Recently, Amnesty International USA, the group's American branch, began posting letter-writing alerts in CompuServe's Issues Forum (GO ISSUESFORUM).

Alerts posted earlier this year included the pending execution of a mentally retarded US prison inmate, a church office bombing in San Salvador, and the arrest and detention of 11 Armenian protesters.

CompuServe users can find current Amnesty International USA alerts in the Issues Forum's Library 15. An overview of Amnesty International USA's efforts is available in the same library in the file AMNEST.TXT.

—John Edwards

Paul Montgomery

Tally Those Strikes

What's the number one participation sport in America? Bowling! It boasts the largest number of registered, dues-paying players of any sport in the world, with some 11 million Americans playing in leagues.

Bowling League Secretary by CDE Software enables a league secretary to automate the process of recording scores, computing averages and handicaps, and tracking high game and high series for each bowler on a weekly basis.

The league secretary types in the scores, and the program automatically figures the rest, including team totals and points won and lost. Final reports can be printed.

Bowling League Secretary is not copy-protected and users receive free technical support from CDE. Designed for IBM PC and compatible computers, the program costs $74.95.

For information, contact CDE Software, 4017—39th Ave. S.W., Seattle, WA 98116-3848; 206/937-8927.

—Cathryn Conroy

'Fax Attacks' Countered with Creative Ads

Sarah Stambler, president of Tech Prose Inc. and a recent conference guest in the Public Relations and Marketing Forum (GO PRSIG), is an expert at using fax machines to market new products and services. In the wake of recent negative publicity about so-called "fax attacks," Stambler believes in using the fax machine judiciously for such high-tech advertising.

The fax machine is only one element in the total marketing campaign; it is most effectively used as a follow-up to a personal telephone call, according to Stambler. Use the fax to offer more detailed information and a trial subscription, coupon or some other premium "giveaway," she says.

Stambler recommends sending fax advertising to only the best prospects. Others should still be contacted by more traditional (and less expensive) means, such as flyers or postcards sent via postal mail. One advantage of a fax campaign, however, is that it can lead to quicker name recognition among major prospects.

Fax ads can be designed as the more traditional business-to-business letters, which Stambler recommends, or as more unusual ads that might include a cartoon telling how people can save money or improve their businesses.

Garry Burdick

Creative marketing by fax: *Stambler*

A fax advertising campaign can be planned and successfully executed at the last minute, unlike more traditional marketing methods. For instance, Stambler says a perfume company called her six days before Christmas wanting a quick campaign that would pull customers into Macy's. In one day, the print piece that would be faxed was created, and fax numbers in specified Manhattan locations were selected. Two days after the original call, the campaign began. "It is fast and free labor to the client," she says.

There are disadvantages. The databases containing fax telephone numbers often do not identify the type or size of business. And sending faxes that are not properly targeted can be expensive.

Stambler says the best products for a fax marketing campaign include fax-related items (such as fax paper) as well as introductions by local restaurants and service companies.

For information, contact Sarah Stambler at CompuServe User ID number 72236,3352 or at Tech Prose Inc., 370 Central Park West, Suite 210, New York, NY 10025; 212/222-1713.

Fax marketing campaigns can be conducted via CompuServe using EasyPlex electronic mail (GO EASY).

—Cathryn Conroy

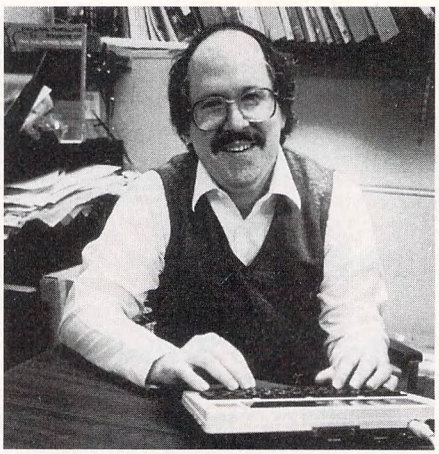
Electronic Education

Students whose schedules or handicaps prevent them from participating in a traditional education setting are getting a chance to attend college by connecting computer and modem to a worldwide network of professors and students.

This network is Connected Education, an electronic college offered by New York's New School for Social Research. Numerous courses for undergraduate credit are offered, and it is the only program that offers a master of arts degree that can be earned entirely online.

Directed by Paul Levinson, who was a recent conference guest in the Education Forum, Connected Education's emphasis is on telecommunicating. "People talk to people through computers," says Levinson, rather than using computer-aided instruction as do some other programs. Professors, chosen from a "global community" of experts, leave "lectures" online for the students to read, facilitating electronic class "discussions."

Many students find that there are fewer obstacles to achieving an education online because of the flexibility of telelearning. They can attend class any time of the day they choose, making it easier to integrate a professional work schedule with formal education. Distance is not a factor with a modem hook-up. Deaf and blind students participate on an equal basis with other students.



Connected students, professors: *Levinson*

Calling traditional classrooms "place based, book paced," Levinson says electronic learning provides a superior education because of this flexibility. "A beautiful multidimensional tapestry emerges, a multilog in which ideas are developed. The result is a high-quality education."

Connected Education currently offers a Master of Arts in technology and society and a certificate in electronic publishing. A doctorate program in technology studies and a master's in business administration are in the works.

For information, contact Paul Levinson, President, Connected Education, 92 Van Cortlandt Park South, #6F, Bronx, NY 10463; 212/549-6509; or by EasyPlex at User ID 72517,3107.

On CompuServe, visit the Education Forum (GO EDFORUM) for discussions on all types of schooling.

Computer Retail: Market Analysis

Add-on memory sales to US computer retail stores has continued to grow despite an overall market fragmentation and confusion, according to a report by IMS America Ltd. In fact, in 1988 there was a 103 percent wholesale dollar growth in this market, which IMS largely attributes to increased software demands for system and printer memory.

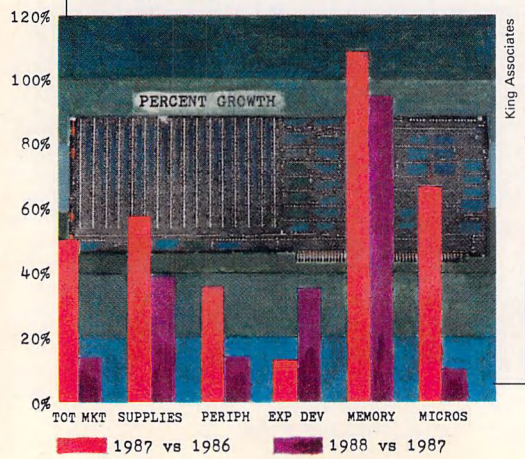
RAM chip sales increased 88 percent over 1987, even though the movement of systems, peripherals and other expansion devices slowed. The market evolved into five distinct segments, and shifting industry standards perplexed resellers and buyers.

In addition to concerns about the add-on memory market, US computer manufacturers are battling foreign competition. Major computer manufacturers in Japan, Korea and Taiwan have accounted for more than 14 percent of 1988 wholesale dollars for computer systems and peripherals sold into US computer specialty stores, according to another IMS report.

The main competitors—Epson, NEC, Toshiba, Okidata and Panasonic—dominate the printer and laptop computer segments, and their growing significance in the desktop computer and monitor markets cannot be ignored, especially when it comes to NEC.

Specifically, Epson has lost market share, while Leading Edge in 1988 dominated the Japanese/Southeast Asia desktop markets. IMS predicts that NEC and Panasonic are two overseas vendors to watch in 1989.

Both reports are available for purchase from IMS America Ltd., Computer Markets Division, Plymouth Meeting Executive Campus, 660 W. Germantown Pike, P.O. Box 905, Plymouth Meeting, PA 19462-0905; 215/834-4701.



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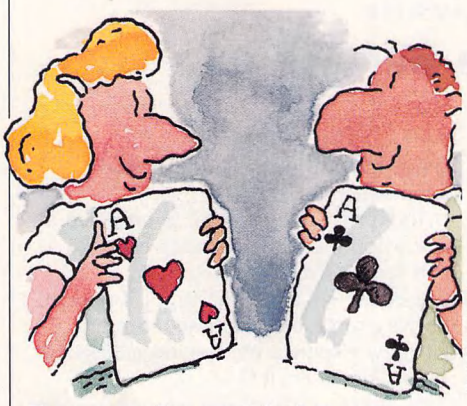

Paul Montgomery

Pugnacious Liaisons

A new CompuServe service plays matchmaker, after a fashion, for avid computer gamers. The Modem Players Challenge Board helps you locate fellow game devotees in your area, whom you can then contact and battle over regular phone lines using your own game software.

At the heart of the Challenge Board is the game players' directory: Each prospective player provides pertinent registration information, including his or her area code, computer type, skill level, and phone number or EasyPlex address. (If you don't want to give out your phone number, opponents can type INVITE to automatically send you an EasyPlex invitation form with their challenge.) There are game directories for Interstel's *Empire*, Microsoft's *Flight Simulator* version 3, Spectrum-Holobyte's *Falcon* (for IBM PCs and compatibles, PC-ATs and Macintosh computers), and Electronic Arts' *Modem Wars* for the IBM family and the Commodore 64.

To scout out suitable players, you can sort through the directories by area code. To avoid long-distance tolls, you can further limit searches to your local exchange. Optional registration features include an area for short comments (useful for boastful intimidation) and entry in the game vendor's mailing list.

To sign up online for offline games, type GO CHALLENGE.

—Michael Houdeshell

Experts Predict Future Technology Tools

Earlier this year, Apple Computer unveiled its vision of the future.

The company's Knowledge Navigator system is something like the "show cars" Detroit automakers so earnestly constructed in the '50s and '60s. Like those long-lost dreamboats, Apple's prototype computer is more a forecast of what the future *may* bring than what it *will* deliver.

The Knowledge Navigator, which was designed for Apple by futurist Alan Kay, combines the best features of computer, video and artificial intelligence technologies. The flip-open, notebook-sized unit incorporates a color, flat panel display. Its operating environment and applications are manipulated with user-spoken commands. Full-motion video is freely mixed with text to provide visually stunning and highly effective databases, word processors and other programs. Apple hopes to have its first Knowledge Navigator on sale by the mid-1990s.

As we rush toward the 21st century, CompuServe's forum administrators are already looking toward a future of Knowledge Navigators and similar machines. They also have their own ideas about what the years ahead will bring.

Runnoe Connally, administrator of CompuServe's Microsoft Applications Forum (GO MSAPP), believes modems will be standard and at least 9600 baud and that monochrome monitors will be as obsolete as black-and-white televisions. He also foresees 3-D screens with photographic-quality resolution.

James Burton, WordStar Forum administrator (GO WORDSTAR), believes personal computers eventually will connect to other kinds of media, including video, compact disc, telephone, and broadcast systems and services. "I'd like to free the computer from the typewriter/TV paradigm to input and output with sound, full body motion, 3-D images and inexpensive robot components," he says.

Jim Horn, administrator of the Texas Instruments Forum (GO TIFORUM), says there is a need for special-purpose machines that are dedicated to a single task, unlike today's personal computers, which are designed to tackle a variety of chores. He notes that many users are already creating such systems. "People are hanging a word processor and a schedule minder on the super general-purpose systems of today," he says.

For more information on the Knowledge Navigator, contact Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014; 408/996-1010.

—John Edwards

How to Get the Most Out of CompuServe

Get Value from Free Services

by Charles Bowen and David Peyton

Cynics say that when you get something for free, it is worth every penny you pay for it.

There is a lot of real-world common sense in that observation. So often, something that is for free Free FREE! is actually being thrown out Out OUT! What is a clearance sale to us is a spring house-cleaning to the guy running the show.

Because of that, it has taken us a while to get used to the notion that some things in the computer world are truly free.

"Sure," a cynic would say, "but do these free things have any real *value*? Those flyers from political candidates are free, too, but after you've colored in the pictures and rearranged their faces, what good are they?"

Since the beginning, much personal computing information has been free or nearly free. Today, just as a decade ago, computer users like to *talk* to one another. City and state user groups came into being so people could share the experiences they've had with these machines. If one person had cracked a particularly tough nut in programming or in specific application software, that solution could be shared with everyone else.

When computer user groups came online through CompuServe's forums, the sharing went international on message boards and in the forum libraries. Not only that, the variety and quality of information increased many times over. Suddenly, instead of having access to a few local or state experts, the modem user could tap into 100 different forums to find answers to questions on programming, hardware, business and recreational software and more. And instead of having to wait until the next club meeting, he or she could post questions on an online board and get answers by the next day, or even within hours or minutes.

Of course, "free" in this case has been a relative term, because the user has paid for the "connect time" to retrieve the information. But now the latest development in free data knocks down some of those costs. CompuServe is offering access to a number of services, including some important searchable databases, free of connect-time charges. Free services have the notation (FREE) on main menu screens.

In April, CompuServe announced a new $1.50 monthly membership support fee to cover increasing data service costs. At the same time, it opened the way for users to off-set some of that new expense by making access free to such services as:

- The Subscriber Directory, a fast way to locate other members' User ID numbers;
- The Subject Index for locating online services on any topic;
- Network access telephone number searches for finding 300-, 1200- and 2400-baud numbers around the country, including direct CompuServe lines and packet networks that can reach the service;
- Billing information of all types, including your personal current and historical billing data and information on various CompuServe rates and surcharges.

This column illustrates how to use some of the more important free services.

The Member Directory (GO DIRECTORY) is introduced by this menu:

```
*********************************
CompuServe (FREE)          DIRECTORY
MEMBER DIRECTORY
  1 Explanation
  2 Member Directory Search
    (U.S. and Canada)
  3 Member Directory Search
    (International)
  4 Include/Exclude This User ID
Enter choice !
*********************************
```

Option 1 provides instructions, while Options 2 and 3 enable you to search domestic and international listings. Each of these works the same way, starting with this prompt:

```
*********************************
Last name (<CR> to exit):
*********************************
```

If the name is a common one (such as Jones, Johnson or Smith), the system probably also will provide a second prompt for a first name:

```
*********************************
First name begins with (e.g. JOH):
*********************************
```

It then lists the names, cities and User ID numbers it has found, like this:

```
*********************************
BOWEN, CHARLES E. HUNTINGTON,
WV 71635,1025
BOWEN, CHARLES M ANYTOWN, GA
70000,0012
BOWEN, CHARLES O. SOMEPLACE, WA
70000,0011
BOWEN, CHARLES W. OTHERPLACE,
KY 70000,0010
Last name (<CR> to exit):
*********************************
```

Note that the fourth option on the main Directory menu also allows you to exclude or include your own User ID number in the listing. When new members sign up, the system routinely asks if they want their User ID numbers in the directory. Members can change that decision at any time by using this option.

The Subject Index is reached by typing GO INDEX, which causes the system to display:

```
*********************************
CompuServe Index (FREE)        INDEX
FIND A TOPIC
  1 Search for Topics of Interest
  2 List ALL Indexed Topics
  3 Explanation of Index
Enter choice !
*********************************
```

Option 1 provides the search facility, prompting you with:

```
*********************************
Enter topic (e.g. stock) :
*********************************
```

Type a word and the system lists each feature that might relate to your topic along with its direct address. For instance, if you type NEWS at the prompt, the system replies:

```
*********************************
News
AAMSI Communications          AAMSI
AP Datastream (E)               ENS
AP Sports ($)                  NEWS
AP Videotex, Business           APV
AP Videotex, Entertainment      APV
AP Videotex, Politics           APV
AP Videotex, Weather            APV
AP Videotex, World News         APV
AP Online Sports ($)           NEWS
```

```
Apples Online (W)                    AOL
Associated Press (E)                 ENS
Aviation Safety Institute            ASI
Commodore Newsletter                 CBMNEW
Digital Research Inc.                DRI
Dow Jones & Co                       DJ
Dr. Dobb's Journal                   DDJ
Executive News Service ($E)          ENS
Hollywood Hotline                    HOLLYWOOD
IQuest                               IQUEST
Information USA                      INFOUSA
Journalism Forum                     JFORUM
MMS/Fedwatch Newsletter ($)          MMS
McGraw-Hill ($E)                     ENS
McGraw-Hill Snapshot                 MHSNAPSHOT
News-A-Tron ($W)                     NAT
NewsGrid                             NEWSGRID
NewsNet                              NN
Newsweek                             NW
OTC NewsAlert ($E)                   OTCNEWS
Online Today                         OLT
Reuters Financial Report ($E)        ENS
Tandy Newsletter                     TANDY
Texas Instruments News               TINEWS
The Business Wire                    TBW
Washington Post ($E)                 ENS
Enter GO PAGE!
**********
```

The prompt at the end of the list means that you should enter the GO command followed by the direct address of the feature you are interested in. If you want to visit the *Online Today Daily Edition*, for example, type GO OLT.

In the list, the dollar sign ($) denotes surcharged features; the (W) symbol means the feature requires a screen display that is larger than 32 characters (for charts, for example), and the (E) symbol means that the feature is part of the Executive Option (you can retrieve more information about that by typing GO EXECUTIVE at any prompt).

The Network telephone database (GO PHONES) opens with this menu:

```
**********
CompuServe (FREE)                PHONES
COMPUSERVE NUMBERS
  1 Search by area code
  2 Search by City and State
  3 List all CompuServe Numbers
ALL NETWORK NUMBERS
  4 Search by area code
  5 Search by City and State
  6 List all network numbers
  7 Help and Information
  8 Number changes/additions
Enter choice !
**********
```

Note the service is in three parts. The bottom two options (7 and 8) provide help with the feature and news of recent additions and changes in access numbers. The middle three options provide data on *all* major network access numbers (CompuServe, Telenet, TYMNET, DataPac), and the first three options provide the same searching capabilities for CompuServe numbers only.

To see how it works, suppose you select Option 4 to search all network numbers by area code. The system then prompts:

```
**********
Enter area code !
**********
```

You enter a three-digit number and the system asks:

```
**********
Enter Baud Rate
(300,450,1200,2400) !
**********
```

To find 300/1200 baud lines, type 1200 at the prompt. The system then displays a menu like this:

```
**********
CompuServe (FREE)                PHONES
City State Net AC Access #
Charleston WV CS          304 768-9700
Huntington WV CS          304 733-4010
Morgantown WV TEL         304 292-0104
Morgantown WV TYM         304 292-3092
Parkersburg WV CS         304 485-4225
Westover WV TYM           304 292-3092
Wheeling WV CS            304 233-9470
Last Page!
**********
```

In the column for "Net" codes, CS means CompuServe, TEL means Telenet and TYM means TYMNET.

Note that surcharges are associated with the use of all network access numbers. You should check the online reports to find the current surcharges. Fortunately, that service, too, no longer carries connect-time charges.

Online Rates (GO RATES) has this introductory menu:

```
**********
CompuServe (FREE)                RATES
  1 Executive Option
  2 Connect Rates
  3 Communications Surcharges
  4 Miscellaneous Charges
  5 Billing Options
  6 Hours of Operation
  7 Transaction/Premium Programs
  8 Business Account Set-up Fees
  9 Membership Support Fee
 10 Member Support Services
Enter choice !
**********
```

In other words, RATES provides the latest charges for the system's connect time, Executive Option, premium services, business accounts and so on. Of particular interest to some users are the transactional/premium rates. Selecting Option 7 produces this menu:

```
**********
CompuServe (FREE)      TRANSACTION
TRANSACTION/PREMIUM PROGRAM
RATES
  1 Aviation/Weather
  2 Decision Support
  3 Education
  4 EasyPlex Electronic Mail
  5 Games and Entertainment
  6 Medical
  7 News/AP Sports Wire
  8 Reference/Forums
  9 Money Matters/Markets
 10 Travel
Enter choice !
**********
```

Choose any option and subsequent menus lead you to information on the latest cost of premium services in each of these subject areas.

Personal current and historical billing data (GO CHARGES) provides information on your own charges on the system.

It offers an explanation of terms and retrieves your account balance and billing history.

The area even offers details on current activity (that is, the current billing period's usage and charges before they are posted to your account) and on previous activity.

Also among the services that are now free are the Profile Area (GO PROFILE), the section discussed in earlier columns that enables you to customize CompuServe to meet the specific needs of your terminal and communications software; What's New (GO NEW), the weekly listing of new services; the terms and rules of operation (GO RULES); Online Q&A (GO QUESTIONS), which gives you the answers, arranged by subject, to the most common questions; the CompuServe Tour for newcomers (GO TOUR) and the command summary (GO COMMAND).

Charles Bowen and David Peyton co-authored How to Get the Most Out of CompuServe *and* CompuServe for IBM PC Power Users. *Bowen's CompuServe User ID number is 70007,411. Peyton's is 76703,244.*

Increase Productivity with New Forum Files

The following are a few of the files uploaded to CompuServe libraries in recent months. For a larger and more up-to-date list, check the weekly "Uploads" columns in *Online Today Daily Edition* (GO OLT-3700).

ALDUS FORUM
(GO ALDUS)

WordPerfect Filter—An IBM PC WordPerfect 5.0 filter for Aldus PageMaker 3.0 contains support for WordPerfect 5.0 character sets 1, 2 and 4. File WP5FLT.ARC in Library 7.

AMIGA ARTS FORUM
(GO AMIGAARTS)

Solitaire—A computerized version of *Klondike Solitaire*, the popular card game for one player. File KLOND.ARC in Library 4.

ASTRONOMY FORUM
(GO ASTROFORUM)

Look Up!—The orbital elements of more than 50 satellites. A good selection for viewing with the naked eye. File SATDAT.TXT in Library 3.

ATARI PRODUCTIVITY FORUM
(GO ATARIPRO)

Park It—The Parking Valet, a desktop accessory to call up and run PARK.PRG, no matter what folder you may be in. File PARK.ARC in Library 4.

ATARI ST ARTS FORUM
(GO ATARIARTS)

Battleship—A GEM-based version of the classic *Battleship* game. Files SHPCOM.ARC and SHPCOM.DOC (documentation) in Library 2.

BACCHUS WINE FORUM
(GO WINEFORUM)

Apnea Warning—A reprint of an article that indicates healthy men suffer episodes of sleep apnea after moderate consumption of alcoholic beverages before bedtime. File APNEA.NCS in Library 0.

BORLAND PROGRAMMING FORUM A
(GO BPROGA)

Communications Driver—A public-domain communications driver for the IBM PC. Written in Turbo Prolog. File IBMCOM.ARC in Library 2.

CANCER FORUM
(GO CANFORUM)

Breast Cancer Info—Transcript of a conference with Lee Miller, president of SHARE, the self-help group for women with breast cancer. File SHARE.TXT in Library 4.

CD-ROM FORUM
(GO CDROM)

CD-ROMS for the Mac—A list of 49 CD-ROMs for the Macintosh. File MAC in Library 1.

COLOR COMPUTER FORUM
(GO COCO)

Assembly Language—An edited transcript of a CoCo Forum conference on assembly language programming with Kraig Brockschmidt. File 0211CO.TXT in Library 1.

COMMODORE MUSIC, GRAPHICS AND GAMES FORUM
(GO CBMART)

Cluster Wars—Version 1.1 of GEOS *Cluster Wars* by Francis G. Kostella. Documentation available from the main menu. File CLUWAR.BIN in Library 13.

COMPUTER CONSULTANT'S FORUM
(GO CONSULT)

Pass the Ideas—Brainstorm, a network productivity tool for sharing ideas in a multiuser network environment. File and record locking for Novell 2.0a and above, Banyan Vines 2.0 and above, and most LANs that support DOS 3 calls or the SHARE command. File BS.ARC in Library 4.

GAMERS' FORUM
(GO GAMERS)

Chess Club Help—Chess Club Secretary program for IBM PCs and compatibles. Maintains two rating systems and a club roster. File CHESSC.ARC in Library 4.

IBM APPLICATIONS FORUM
(GO IBMAPP)

Report Organizer—Help for students who must organize information for a book report. File BKRPRT.ARC in Library 11.

IBM COMMUNICATIONS PROGRAM
(GO IBMCOM)

Procomm Revision—Version (2.4.3) of Procomm. See PROCOM.NEW for version history. File PROCOM.ARC and PRCDOC.ARC (documentation) in Library 3.

IBM NEW USERS' FORUM
(GO IBMNEW)

For Lottery Buffs—Analyze every type of lottery game played. Play your numbers against the computer. Color graphics, DOS 2.1 or higher and 256K required. File LLOTTO.ARC in Library 9.

JOURNALISM FORUM
(GO JFORUM)

Junk Stories—"Project Censored" media critic Dr. Carl Jensen lists the "Top 10 Junk Food News Stories of 1988." File JUNK88.TXT in Library 5.

MAUG HYPERCARD FORUM
(GO APPHYPER)

Card in a Window—Snapshot, an extension to HyperCard that allows you to create a "snapshot" card on the screen. File SNPSHT.SIT in Library 7.

MAUG MACINTOSH ENTERTAINMENT FORUM
(GO MACFUN)

Bush on Disk—President Bush says "Thank you, God bless you and God bless America" to make a shutdown/restart sound for the Mac. File BUSH.BIN in Library 8.

MACINTOSH PERSONAL PRODUCTIVITY FORUM
(GO MACPRO)

Gatekeeper—Prevents unauthorized file and resource activity, making it virtually impossible for an infection to spread. File GATEKE.1SI in Library 5.

MCS MIDI/MUSIC FORUM
(GO MIDI)

New Music Products—Textfile reviewing newest products unveiled at a recent National Association of Music Merchants "Dealers Only" Show in Anaheim, Calif. File NAMM in Library 2.

MOTOR SPORTS FORUM
(GO RACING)

Conference with Racer—Transcript of a conference with Kenny Bernstein, *Motorweek Illustrated*'s Racer of the Year for 1988. File KENNY.CNF in Library 1.

SCIENCE FICTION AND FANTASY FORUM
(GO SCI FI)

"Star Trek" Guide—A program for IBM PCs and compatibles that contains a guide to the first 40 shows of "Star Trek: The Series." Supports CGA/EGA/VGA monitors. File ST.EXE in Library 2.

TANDY PROFESSIONAL FORUM
(GO TRS80PRO)

Laptop Loader—A TSR load utility for the Tandy 1400LT that allows loading of TSRs into an extra 128K of memory. File T14MEM.ARC in Library 5.

WORDPERFECT SUPPORT GROUP FORUM
(GO WPSG)

WordPerfect Macros—Collection of more than 70 macros for WordPerfect 5.0. Copyrighted but free. From Alan Kaplan. File WPMAC5.ARC in Library 0.

David Peyton co-authored How to Get the Most Out of CompuServe. *His CompuServe User ID number is 76703,244.*

Dividends Reveal Truth about Stock Values

Only High Earnings, Cash Flow Justify Payment to Shareholders

by Mike Pietruk

Quarterly dividend declarations are eagerly anticipated by millions of shareholders. For some, dividends are extra spending money. For others, it's income they depend on to make ends meet. Only a few stop to think about the role these regular payouts play in establishing the worth of their investments.

The topic is of great interest to Geraldine Weiss, who has monitored corporate dividends for 20 years in her biweekly *Investment Quality Trends* advisory service, one of the top-ranked newsletters in the business. Weiss also addressed this topic in depth in a book titled *Dividends Don't Lie: Finding Value in Blue-Chip Stocks*, in which she and co-author Janet Lowe argue that corporate dividends are the most significant yardsticks measuring the worth of stocks.

Dividends show stock worth: *Weiss*

Unlike some value barometers, dividends are real money—unlike balance sheets, which are often used to reflect creative accounting for tax purposes or to put forth a positive image to investors or analysts. There's no subterfuge when it comes to a dividend—either it's paid or it's not.

"Consequently," points out Weiss, "a dividend is unlikely to be paid unless earnings, profits, or cash flow justify the payment. Most important, when a dividend is increased, tangible value is added to the price of the stock."

Weiss illustrates the concept with this example: A $20 stock paying an annual dividend of $1 yields its holders 5 percent calculated by dividing the stock price by the dividend. A dividend increase to $1.20 with the price remaining unchanged raises the yield to 6 percent. To return to its original value for its owners, the stock's price would need to rise to $24 a share.

Needless to say, in valuing stocks, earnings also count. "Without increasing earnings, a boost in the dividend is unlikely. Likewise, we need to consider book value (the firm's assets minus liabilities)," Weiss explains. "But keep in mind that these numbers are not sacrosanct as the corporation has the ability to doctor the figures, at least to some degree through bookkeeping manipulations and share repurchases in the open market."

Weiss is a staunch proponent of investing only in blue-chip companies. But contrary to popular belief, Weiss says, neither size nor industry leadership defines a blue-chip. "Our definition refers to the *quality* of a company, based on its long-term financial performance," she explains. "According to our way of thinking, there are many large, prominent companies that are not blue-chips."

Weiss considers several factors when determining whether a company issues quality stock:

- The dividend has been raised 5 times in the past 12 years.
- The firm carries a Standard & Poor's ranking of "A."
- It has a minimum of 5 million shares outstanding.
- At least 80 institutional investors hold the stock.
- There have been at least 25 years of uninterrupted dividends.
- Earnings have grown in at least 7 of the past 12 years.

This type of data is followed by Weiss in *IQ Trends* and also can be gleaned from annual reports and services on CompuServe such as S&P Online (GO S&P), Disclosure II (GO DISCLOSURE), and Issue Examination (GO EXAMINE).

In addition to showing quality, Weiss says a stock must also have value. As with her method for determining quality, Weiss' approach to determining value is straightforward, and the data required may be found in Dividends, Splits, Interest (GO DIVIDENDS) and PRICES (GO PRICES.)

The key to value in individual stocks lies in the dividend yield as portrayed in the dividend trend. Individual stock prices fluctuate between repetitive extremes of high and low dividend yield. These recurring extremes establish under- and overvalue price levels. When a dividend is raised, the value bands are automatically adjusted so that they will continue to reflect the historically determined parameters. Each stock has its own distinctive high and low yield characteristics and, therefore, must be reviewed individually.

To perform the evaluation, type GO PRICES and gather monthly quotes on a stock. Then type GO DIVIDENDS and collect its dividend history. Add the dividends for each year to obtain an annual total. To get the numbers for a yield graph, divide the monthly prices by the annual dividends. Plot the results on a sheet of graph paper and you will observe patterns indicating when stocks are undervalued, providing minimal investment risk with maximum upside potential, and when they are overvalued, making the reverse true.

Begin your study with H&R Block because its ticker symbol, HRB, can be used in most financial products surcharge-free. Block proves to be a thoroughbred blue-chip passing with flying colors on all six tests mentioned earlier. The parent company of CompuServe, however, is a perfect example of the axiom that quality doesn't necessarily correlate with value. After analyzing the data, you'll discover that Block has offered investors significant value when it yields 7 percent and is overpriced at around 2.5 percent. Translating this into numbers with the stock at press time paying $1.04 annually, Block is a buy in the $15 a share area and is overpriced at around $42.

IBM presents a slightly different story. Examination reveals it to be undervalued at a 4 percent and overpriced at a 2 percent yield. Those who chart the stock will note that an extraordinary yield of 7 percent was available in 1980-81. Because this occurred only on a single occasion, we can choose to ignore it and refer to the 4 percent area as the buy zone. Incorporating today's annual figure of $4.40, IBM is a buy within 10 percent or so of $110 and has potential to reach $220. Value Line (GO VLFORE) projects a $7 payout by 1991-93 suggesting even higher probable price appreciation.

Warning: This method is not for short-term traders! Instead, Weiss' advice works best for those with patience and an eye on the future.

Mike Pietruk is a forum administrator of CompuServe's Investors' Forum and an assistant vice president of Preferred Savings & Loan in Chicago. His CompuServe User ID number is 76703,4346.

Commodities Markets—Risky and Lucrative?

by Mike Pietruk

Recently the press has been filled with horror tales of speculators losing thousands of dollars in the commodities markets. Yet, surprisingly, investor interest has never been higher. The lure of quick gains sparked by falsely exaggerated claims and the misstating of risks continue to entice both novices and experienced traders.

Although there's no guarantee of success in commodities, industry professionals seem to agree that there are ways to gauge your probability of success prior to entering that initial trade.

Commodities broker George Rahal with the Columbia, Md., office of Dominick and Dominick has observed fortunes made and lost. He believes some prerequisites—such as substantial risk capital—are essential for long-term success. "What is substantial varies from individual to individual," says Rahal. "But few of my clients have been successful with less than $20,000, although you can trade with far less. If you cannot easily afford to lose $20,000, you have no business in futures."

Next, says Rahal, is the temperament factor: not having wild expectations, not panicking, being able to make and carry out decisions without hesitation, and being capable of handling losses without irrationally blaming others.

Those with the money and the temperament need to follow basic rules—rules that apply regardless of how you determine what you are going to buy or sell. Violating these, according to one floor trader on the Chicago Mercantile Exchange, is the equivalent of driving the wrong way on the freeway. "You may survive for a while," he says, "but eventually you'll be killed."

The most important of these axioms is to never trade above your comfort level. Invariably, "when a trader gets scared, he panics and panic compounds losses," says Rahal. "Fear and panic naturally set in when you are trading beyond your comfort zone."

Successful traders stress the importance of determining your maximum acceptable loss prior to establishing a position. This not only helps control emotions, but forces you to get out while still in your comfort zone so you can re-enter later. Most beginners are amazed to learn that it is possible to make money in commodities by being right only one out of every four or five trades. The trick is to cut losses short and allow the profits to run—protecting your gains by continually raised stop or exit points.

Another rule Rahal espouses is to diversify your portfolio across industries and markets. "Diversification has always been a landmark of long-term profits for me," he says. "I adhere to the stock market adage, 'The trend is your friend.'

"I realize that there are tremendously complex analytical techniques available," he adds. "These are regularly discussed in Section 4 of the Investors' Forum (GO INVFORUM) message board. Many have merit, but are difficult to test and evaluate. However, the trend has worked for me, and its simplicity makes it attractive."

Trends tell: *Rahal*

News-a-Tron (GO NAT) is another online source of information about commodities. It provides two types of reports for traders: Market Reports, and Stock Market Indices Analysis and News Reports.

Market Reports provide news, features and cash quotes for selected commodities, interest rates and financial instruments. Stock Market Indices Analysis and News Reports cover the fast-developing area of stock market futures. The reports offer closing quotes on the major market indicators and an analysis of why they closed as they did.

Included are the Dow Industrial News and Analysis, the Kansas City Value Line News and Analysis, and an overview of the major indexes on the New York and American Stock Exchanges. Each report area carries an entrance surcharge of $1.25. Once you access the area, you can read as many reports as you like at standard connect-time rates. Sample reports are provided in NAT's introductory material, which you are urged to examine before using the service.

Another News-a-Tron service is Agri-Commodities (GO ACI), publisher of a weekly newsletter, *Futures Focus*. Prepared each Friday, *Futures Focus* features the unique TSF trading system, specific trading recommendations, a market overview and tips to improve trading performance. The letters carry a $20 an hour surcharge during prime time hours and a surcharge of $15 an hour evenings and weekends.

Interest rates have a direct impact not only on bond futures but also on a wide range of other futures. Thus, MMS International's (GO MMS) reports, although not specifically addressed to the futures markets, can provide timely information. *FEDWATCH*, released each Friday afternoon, offers a thoughtful perspective on Federal Reserve monetary policy and its impact on interest rates.

MMS's biweekly *Economic Briefings* projects key economic statistics such as GNP, consumer and wholesale price indexes and retail sales. MMS also provides daily currency and debt market reports that explore and summarize factors affecting these markets, along with extensive coverage of the economic, political and market events likely to affect interest rates in these areas.

Another source for commodities information is Commodity Price (GO CPRICE), a comprehensive database of price information going back to Jan. 2, 1979. The service includes both cash and quotes prices with the daily open, high, low and settlement price along with 24-hour delayed day open interest, volume and cash prices. Updated by 7 p.m. ET, data is available for all commodities traded on the US and Canadian exchanges for which there is a meaningful trading volume. Financial and currency futures are offered, as well as metals, petroleum and agricultural commodity contracts.

CPRICE is easy to use. At the Commodity prompt, enter the ticker symbol. If you don't know the ticker, enter a question mark and you will be walked through a series of menus. As with stocks in MicroQuote, CPRICE supports ticker files (GO TICFIL) that provide more information on this time-saving feature.

Finally, for more information about futures trading, read Jake Bernstein's *The Investor's Quotient*, and *The Futures Game: Who Wins, Who Loses, and Why* by Richard Teweles and Frank Jones.

Mike Pietruk is a forum administrator of CompuServe's Investors' Forum and an assistant vice president of Preferred Savings & Loan in Chicago. His CompuServe User ID number is 76703,4346.

Reports Summarize Census Bureau Data

by Cathryn Conroy

The Census Bureau issues 14 regular economic indicator reports. The chart below illustrates the release dates, for the rest of the 1989 calendar year, for these reports. Each is released simultaneously on CENDATA (GO CENDATA) and to the press.

Following is a brief description of each report. The number in parenthesis after the report name is the menu option sequence for that report. For instance, Option 11.5 directs you to select 11 from the first CENDATA menu and then Option 5 from the second menu you see.

Business Data (CENDATA menu Option 10)

Advance Monthly Retail Sales (10.2) provides advanced estimates of US retail sales, including durable and nondurable goods and automotive sales, for a given month.

Manufacturing and Trade Inventories and Sales (10.3) contains adjusted and unadjusted monthly estimates of retail and wholesale sales and inventories.

Monthly Wholesale Trade Sales and Inventories (10.4) offers monthly unadjusted and adjusted merchant wholesale sales, inventory and stock/sales ratio estimates.

Quarterly Financial Report (10.5) offers adjusted and unadjusted financial information on manufacturing corporations, sales and profits of corporations engaged in manufacturing, mining and wholesale trade as well as historical data on manufacturing corporations.

Quarterly Financial Report, Retail Trade (10.6) presents advance data on retailers' profits as well as income statements and operating ratios for retail trade corporations.

Construction and Housing Data (Option 11)

Housing Completions (11.3) offers monthly information on the total number of completed housing units as well as data on the structure type and location of new, privately owned units that are completed and of those still under construction.

Housing Starts and Building Permits (11.2) presents monthly figures on the total number of housing starts and building permits secured.

Housing Vacancies (11.9) offers quarterly analysis of residential vacancies, including rental and home-owner vacancy rates for a 12-year period, vacancy rates for units by area, estimates of the total housing inventory for the United States and home-ownership rates for the United States during this decade.

New One-Family Houses Sold and For Sale (11.4) is monthly information on the number of new single family houses for sale and the ones that sold. Also included is a table listing the median and average sales prices.

Price Index of New One-Family Houses Sold (11.5) presents a quarterly price index of new, single family houses that have been sold. Compared to a 1987 index, the figures are designed to measure changes in the sales price of new houses.

Value of New Construction (11.6) offers monthly data on a seasonally adjusted annual rate, a non-adjusted rate in current dollars, a composite cost index and relative standard errors as well as figures on the annual value of new construction in the United States.

Foreign Trade Data (Option 12)

Advance Report on US Merchandise Trade (12.2) contains information on exports, imports and the merchandise trade balance.

Manufacturing (Option 15)

M3 Advance Report on Durable Goods (15.3) offers monthly shipment, order and inventory information from durable goods manufacturers.

The M3 Preliminary Report (15.2) presents monthly data on the value of manufacturers' shipments, new orders, unfilled orders, inventories by industry groups and market categories, inventories by stage of fabrication, and the ratio of inventories and unfilled orders to shipments.

The names and telephone numbers of the Census officials responsible for the report are listed online, these officials can be contacted electronically through CENDATA's feedback option.

Economic Indicator Reports: June-December 1989 Release Dates

	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
BUSINESS							
Advance Monthly Retail Sales	13	14	11	14	13	14	13
Manufacturing and trade; inventories & Sales	14	17	14	15	16	15	14
Monthly Wholesale Trade (BW)	7	11	9	7	11	8	12
Quarterly Financial Report (QFR) for Manufacturing Mining and Trade Corporations	12	—	—	11	—	—	11
CONSTRUCTION AND HOUSING							
Housing Completions	12	13	10	13	12	13	12
Housing Starts and Building Permits (C20)	16	19	16	19	18	17	19
Housing Vacancies	—	27	—	—	30	—	—
New One-Family Houses Sold and For Sale (C25)	29	—	2/29	—	3/31	—	4
Price Index of New One Family Houses Sold	—	—	3	—	—	2	—
Value of New Construction Put in Place (C30)	1	3	1	1	2	1	1
FOREIGN TRADE							
Advance Report on U.S. Merchandise Trade (FT900)	15	18	17	15	17	16	15
MANUFACTURING							
Advance Report on Durable Goods Manufacturers Shipments and Orders (M3)	23	25	22	26	24	22	22
Manufacturers' Shipments, Inventories and Orders (M3-1)	30	—	2/31	—	3	1	4

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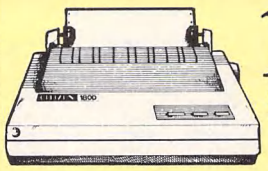

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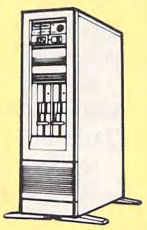

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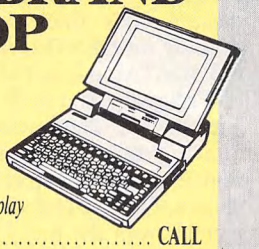

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Computer Database Plus:

Keeping Tabs on Computer Industry Developments

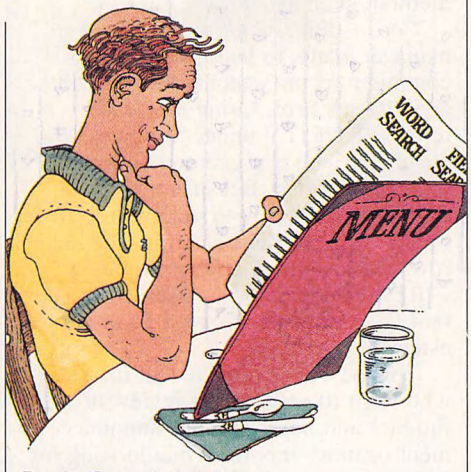
by Cathryn Conroy

Tracking developments in the changing computer industry is a challenge. Whether you're deciding which computer to buy or monitoring company competition, combing stacks of periodicals has been a tedious process ... until now.

Computer Database Plus, a comprehensive collection of computer-related article summaries and full-text stories from leading computer publications, is available on CompuServe. Developed by Information Access Co., it is the first of a family of computer-based reference services to be included in a CompuServe product called Computer Library. Computer Database Plus provides micro to mainframe coverage of hardware, software, electronics, engineering, communications and the application of technology.

With Computer Database Plus, you can read reviews about computer products, learn about potential investment opportunities, gather tips on implementing hardware and software solutions to corporate dilemmas, and keep informed of the latest news and developments in the computer industry.

More than 130 popular magazines, newspapers and journals, including *PC Magazine*, *Byte* and *MacUser*, can easily be searched. Coverage for most titles dates back to Jan. 1, 1987. Since updates are made weekly, publications are online the same month they appear in print. More than 85,000 abstracts are online with nearly 35,000 of those also offering full-text articles.



Basic Search Methods

The search menu of Computer Database Plus offers 9 search criteria: keywords, any words, subject headings, company names, product names, publication names, publication dates, authors and article types.

These search criteria fall into one of two broad categories: word search or field search. In a word search, individual words are used as search terms. *Word searches* can be as simple or complex as you make them. The system searches an entire article for any mention of the word (menu Option 2), or it searches for keywords occurring in the title, subject heading, company and product name (Option 1).

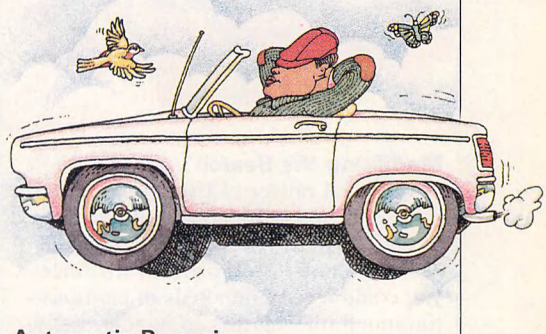
In a keyword search, the number of articles retrieved will be smaller than a search of "words occurring anywhere," but they will be more relevant and on target. If you want more information, including passing references to your topic, search using the "any word" method.

For example, suppose you are researching the AST Premium 286 computer. To read reviews and news about the product, select a keyword search from the menu. Type AST PREMIUM 286 as the search term, and you will retrieve seven articles. Using the same term for a "words occurring anywhere" search produces 33 citations.

When you want to have your word or phrase apply to a specific area, such as a company name, you want to conduct a *field search*. In other words, you are looking for a word or sequence of words that occurs in specific locations within an article. Say you want to zero in on software reviews of Microsoft Works or articles written by noted columnist John Dvorak. Field searching can do the trick.

Field searching takes advantage of word spacing and punctuation to clarify a search request. To retrieve Microsoft Works reviews, select "Product Names" (Option 5) from the main menu and type MICROSOFT WORKS (note: for clarity, most software and hardware is preceded by the software manufacturer's name).

Field searches can be conducted by subject headings, product names, company names, publication names, publication dates, authors and article types.



Automatic Browsing

Because it is difficult to accurately predict word sequences, Computer Database Plus offers an automatic browsing feature that lists search terms for a field search in a convenient menu format. After you supply a partial search term, the system automatically generates a menu of search terms that match it, followed by the number of articles.

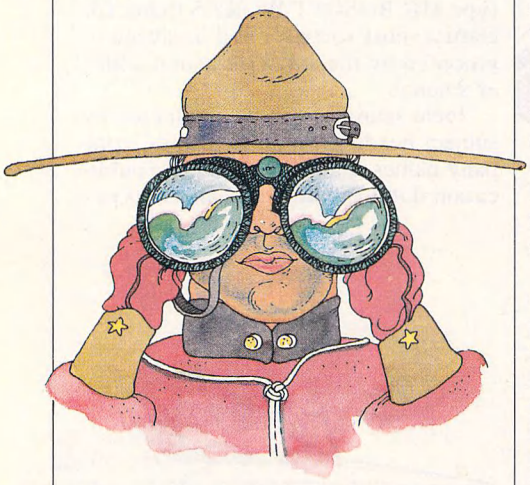
For instance, if you want all the articles written by John Dvorak but are unsure of how to make the request, the automatic browsing feature clues you in. First, select "Authors" (Option 8) from the main menu and, at the Name prompt, type DVORAK. The system automatically browses all citations and responds with:

```
**********************************
Authors in database articles beginning
with "dvorak"
1 dvorak, j.c.                    1
2 dvorak, john                    3
3 dvorak, john c.                95
Enter as many as 3 choices (A for all) !
2
**********************************
```

Note that the 95 next to the entry "dvorak, john c." means 95 articles are

Illustrations by Paul Montgomery

written by that author. Sometimes an "M" will follow the frequency count in certain field searches. It means that there is another menu that further defines the types of articles. Once you select that next menu choice, you will get another menu containing subtopics and their frequencies. You may select any or all of the choices.



Modifying the Search

The real power of Computer Database Plus lies in its ab!'ity to narrow and broaden a search. If your original search term is too broad, for instance, you could receive hundreds of citations—too much information to handle easily, much of it irrelevant to your search. Likewise, if you are too specific in your search term, the system may respond with nothing or only a couple citations.

However, it's easy to fine-tune your search terms without incurring extensive surcharges by narrowing or broadening the search. After the system tells you how many citations resulted from your original search, it presents a menu of seven items that allows you to display a menu of matching articles, match only the full-text articles, narrow the search, replace (or erase) an existing search method, widen the search using an existing search method, start over or display your article retrieval charges for the current session.

To narrow the search, select that menu option and then choose any of the remaining eight search methods. You also can choose to use the existing search method and the system automatically appends your second search term to the first and adds the narrowing operator AND.

Likewise, a search is widened by adding a new search expression that is appended to your original term with an OR. Note that when you widen a search, you must do so using the existing search method. For example, if you are searching by publication names, you must widen the search in this category and not by adding another search method, such as authors.

For instance, a data processing manager wants to learn more about computer security techniques he can apply to his firm. Using the search term SECURITY under "Subject Headings," he is presented with more than 500 articles. Because he really wants to know how to incorporate fiber optics with computer security, he narrows the search by adding the term FIBER OPTICS and is given 10 articles that cover the specific area he is interested in.

This process is also useful for those who want to read only a review of a product and not a product announcement or news report. While looking for information on the AST Premium 286, you can find just the reviews (and skip the news reports and product announcements) by selecting "Article Types," typing in HARDWARE REVIEW (or type ?? for a list of article types) and then narrowing the search by selecting "Product Name" and typing AST PREMIUM 286.

Search Operators and Expressions

Computer Database Plus' search operators are powerful tools that allow you to combine individual search terms into complex search expressions. The rules for forming the search expressions are explained in great detail in the online section, "How to Use Computer Database Plus." Users who want to take advantage of these sophisticated search techniques can download or print the instructions for offline study and ready reference. To save time and money, build your search terms using the operators and expressions before you log on.

The *truncation operator*, which is symbolized by *, matches all terms starting with the characters that precede the operator. For example, ELECTRON* would include articles containing the words electron or electronics.

The *proximity operator*, symbolized by <Nw>, specifies that the words on either side of the operator must both occur within N words of each other in either order. The value of N can range from one to 99, where one indicates that the words should be adjacent, two that there be one intervening word and so on. Example: CACHING <5w> SOFTWARE requires that five words occur between the two search terms.

Another proximity operator is <Np>, which specifies that the words on either side of it must both occur within N paragraphs of each other. Example: online <lp> database.

The *AND and OR operators* are used for Boolean searching (Example: SYMPHONY *AND* SPREADSHEETS). Example: COPIER OR XEROX OR FACSIMILE.

The *range operator*, written as a -, specifies that matching terms must lie within a range of values. For instance, it can be placed between two dates to find articles published prior to or on a certain date. (As such, the range operator can be used only in the "publication dates" search method.) Example: 890101 - 890401, which specifies dates between Jan. 1, 1989, and April 1, 1989.

The *nesting operators*, symbolized by [ ], are used to change the order of evaluation of portions of a search expression, similar to parentheses in algebra. The left bracket begins the order change and the right bracket ends it. Example: [LASER AND PRINTER] AND [IBM OR APPLE] processes differently than LASER AND PRINTER AND IBM OR APPLE.

Computer Database Plus carries surcharges above the regular connect-time rates of $24 an hour (or 40 cents a minute) as well as $1 for each abstract and $1.50 for each full-text article retrieved.

A feedback section allows you to ask questions of the information provider, Information Access Co., or to offer suggestions for expanding the service.

To learn more about Computer Database Plus or to access it, type GO COMPDB. Or call Information Access at 1-800-441-1165.

Cathryn Conroy is a free-lance writer from the Washington, D.C., area. Her CompuServe User ID number is 70007,417.

Illustrations by Paul Montgomery

This Just In: Inside Story on AP

by Cathryn Conroy

Where do your local newspapers and radio and television stations get information on breaking news stories? Chances are it comes from The Associated Press.

With nearly 3,000 employees in 308 news and photo bureaus worldwide, AP serves 87.7 percent of daily US newspapers, representing 96 percent of the newspaper circulation. AP wire stories reach more than 1 billion people daily.

AP is organized into news and photo bureaus in all major US cities as well as some small but geographically strategic spots. Generally, there is one main bureau in a region or state linked to smaller offices. For instance, in Ohio, the main AP bureau is located in Columbus, the state capital. Fifteen employees staff the bureau and work with AP offices at the statehouse, Toledo, Cincinnati, Cleveland and other Ohio cities. All are connected electronically, so stories can be easily and quickly assigned and submitted.

In 1970, AP was the first news organization to use computer terminals for writing, editing and transmitting copy. Eventually these first rudimentary video display terminals were replaced with networked minicomputers and regional editing computers that blanket the United States for faster transfer of news stories and messages over the high-speed DataStream wire. Today, AP distributes the news via the industry's largest satellite network, with 4,000 satellite receiving dishes around the country. AP DataStream is the complete feed of wire stories and is available in CompuServe's Executive News Service (GO ENS).

"In the early days, we would transmit news at 66 words per minute at 56 baud," recalls Chris Pederson, sales manager of information services. "With the technology revolution, AP accelerated the speed of delivery to 1200 baud, and it now transmits up to 9600 baud."

Breaking stories of national interest are sent electronically from the state and regional bureaus to AP's New York headquarters for broader distribution. An editor in New York makes a judgment as to the news value of a story, edits it and then transmits it nationally.

AP also offers international coverage with 84 news bureaus in 70 countries. Although some of these bureaus produce news on typewriters, most are more technologically advanced. Still, Pederson says reporters sometimes simply use telephones to transmit major international stories. "We're transmitting news across the Atlantic and Pacific at very high speeds, but often the phone is quicker. For example, when the Pope died, our reporter in Rome picked up the phone and used the most efficient means to keep the copy rolling—from mouth to ear to keyboard to wire."

From humble surroundings world news comes: *Associated Press newsroom*

But a sophisticated computer network and fast data transmission are secondary to high-quality news copy. This is where the experience of AP's reporters and news editors is crucial.

A good example is Clay Haswell, news editor for the Minnesota bureau, who worked on eight newspapers from Alaska to Australia before he came to AP. "I'm in the news business because I like news, but the thing I like best about working for AP is that we cover the big news." He says the most exciting stories he has covered include the 1988 Olympics in Seoul, Korea, and the 1984 presidential campaign.

To follow major news events without having to wait for the next newscast, log on to AP Online (GO APO), a surcharge-free compendium of the top 300 daily news stories, culled from an average of 5,000 news stories by a team of 14 editors working around the clock to find broad-based stories of general interest. Items include national and world news, political, sports and financial information, feature and entertainment stories, and "Today in History" facts.

AP Online is a real-time news service. Delivered over high-speed transmission lines directly to CompuServe, the news is posted minutes after it is received from the AP editor's desk. In addition to news articles, AP Online features hourly headline updates on the top stories; Dow Jones market averages half-hourly; Wall Street story summaries hourly; sports scores, including games in progress, and team standings and statistics; and weather reports and temperatures.

Photographic Illustrators Tom Hogan

BUSI
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Picture it on

by Carole Houze Gerber

What's happening in the field of computer graphics? In a word—plenty.

First available commercially in the mid-1960s for use in the automotive and flight simulator technology industries, early computer graphics were cumbersome, incredibly costly and featured non-portable software locked into each manufacturer's display devices. Since then—but especially in the last few years—advances in hardware and software for personal computers have made graphics programs faster, easier to use and infinitely more affordable.

Use of graphics capabilities among personal computer owners is growing for several reasons, according to Stephen Satchell, contributing editor of *InfoWorld*, a weekly computer industry trade magazine. A major reason, he says, is that advances in the state of the art of computing have cut, and will continue to reduce, the price of graphics-related hardware.

"It's difficult to point to one particular thing as a significant advance in graphics for personal computers, because each advance in CPU performance, monitor capabilities and in the

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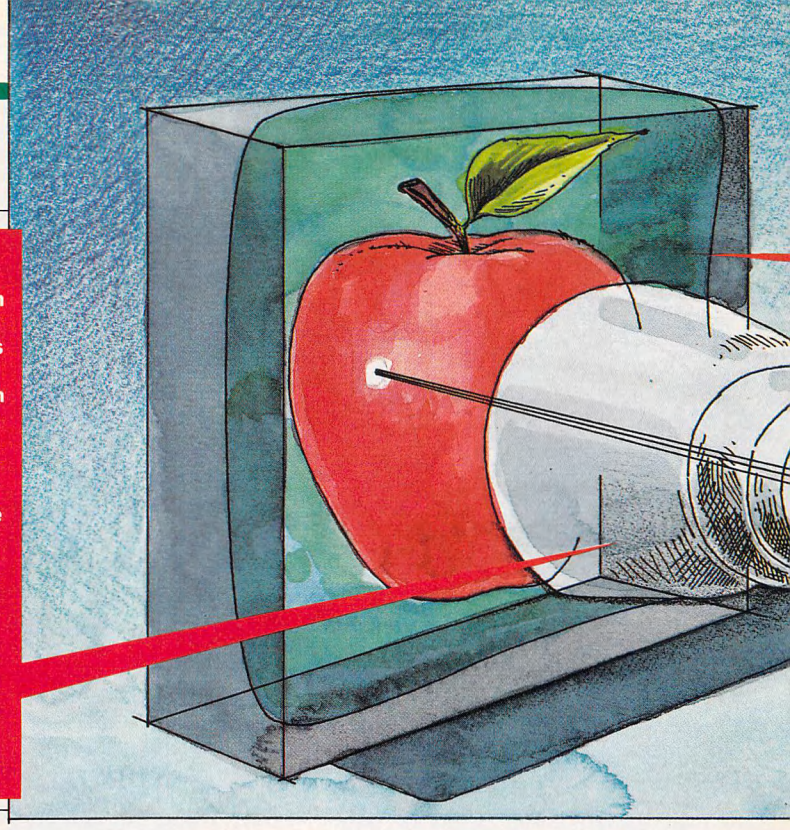
technology that displays the graphics on the monitor contributes," Satchell says. "In my opinion, the sophisticated monitors that can be easily connected to many types of computers rank as the top practical advance."

Satchell adds that graphics user interfaces are also of great practical value. He urges novices, especially, to find out about appropriate interface software that can be used to simplify and automate their graphics-related tasks. "The vast majority of computer users today are not sophisticated," he remarks. "They can use all the unobtrusive help they can get. Yes, they can ask the 'guru' questions all the time, but it makes the user feel bad and annoys the guru. Let the computer help the user, not vice versa."

Satchell's point is well taken, yet even sophisticated users are social creatures, most of whom want to talk—if not to the high-tech guru—to other users. In fact, sophisticated users can themselves become online gurus if they master the techniques and tricks of, for example, a particular piece of desktop publishing software. What's more,



On a CRT (cathode ray tube), an electron gun in the neck of the tube sends beams of electrons through an electro-magnetic yoke that deflects the beams according to changes in the yoke's vertical and horizontal magnetic fields. The computer controls these variations, dictating the patterns the beam traces on the broad screen at the front.

novices and gurus alike will find a variety of forums, products and services online that make swapping, sharing and using computer graphics a pleasant and worthwhile experience.

No Consensus on Universal Graphics Format

Imagine going into a sales meeting with a box of beautifully executed slides and charts that form the heart of what you expect to be a brilliant presentation. But wait! Your slides won't fit into the client's slide tray. The client's easel is far too small for your chart paper. To top it off, the conference room is so small and drab you can hardly move, much less display the flamboyant style that has clinched so many deals. Under these circumstances, the possibility of effectively getting your message across is virtually nil.

What is lacking is a common format—a pleasing environment equipped with a mutually compatible set of tools with which you and your client can communicate effectively. This same need for compatibility, so important for effective interpersonal communication, is essential for computer-to-computer communication.

Software communications packages equip computers to exchange data, text, and—depending on the package—pictures. But to date, no one type of communications software works on all machines. Instead, communications software has been developed that supports specific graphics standards, or methods of exchanging and displaying data.

Since 1980, a major debate in the online information industry has centered on developing and achieving universal agreement on a uniform, industry-wide graphics standard. What has evolved worldwide over the past decade is not consensus, but several graphics standards (in addition to the 8-bit ASCII code that is the basis for worldwide computer communications), each requiring different software. Those in use on CompuServe are Run Length Encoded (RLE); North American Presentation Level Protocol Syntax (NAPLPS); and Graphics Interchange Format (GIF), which was developed by CompuServe in 1987.

RLE Graphics Format Well-Supported Online

RLE graphics is a monochromatic graphics format for the display of low-, medium- and high-resolution images. The level of resolution—the clarity of the graphic image displayed through RLE or any other format—is directly related to the number of small areas, called pixels, into which the computer screen is divided.

The smaller and more numerous the pixels on the screen, the better the quality of the graphics that are produced when an electronic beam is fired through the CRT in a display method called "raster scanning." The beam scans across and down the back of the screen, lighting certain pixels as it moves. These lighted pixels create the picture that appears on the screen.

CompuServe has RLE images for viewing or downloading in a variety of forums and services, including the

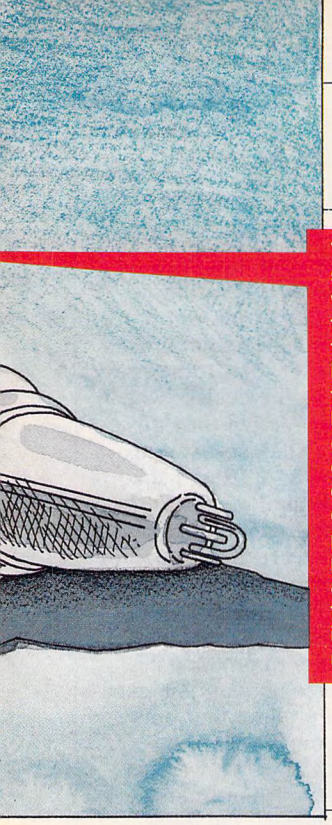
HyperCard, Navigator: Ingenious Interfaces

Those with Macintosh computers who want to speed up and simplify the way they obtain online data and perform other tasks will find HyperCard and CompuServe Navigator to be excellent graphics interfaces for speeding the process.

One reason CompuServe Navigator is such a valuable interface is that instead of having to rely solely on slow cursor movement, you can use the speedy mouse to point and click. Another benefit is a "copy table" capability that takes information from the screen and automatically sets it up in a tab-delineated spreadsheet format.

And because CompuServe Navigator facilitates automatic access, the user can predefine the data he or she wants to retrieve, have it gathered, then review it offline. CompuServe Navigator supports CompuServe Quick B protocol, which decreases download time, ensures error-free file transfer and supports direct transfer of GIF graphics. HyperCard, which looks for and stores information, words, charts, pictures, digitized sound and graphics, is actually a graphics programming language that enables a user to make full use of all the Macintosh's functions without having to be a computer whiz. The HyperCard Forum (GO APPHYPER) features 13 libraries filled with techniques for using HyperCard for clip art, as well as for many business and personal uses.

HyperCard comes bundled with Mac computers. CompuServe Navigator, created by software developer Michael O'Connor, can be ordered from CompuServe online (GO ORDER) for Apple Macintosh 512, Plus, SE or Mac II modes. A double-sided 800K disk drive and 512 memory plus System 3.0 are required.



The inside of the screen is coated with phosphors that glow when the electrons hit. In a color CRT, three separate beams are generated, each creating a different primary color in the pixels. The more pixels the CRT is able to display, the better the image's resolution.

King Associates

Quick Picture Forum, which supports RLE but doesn't have images for downloading; the Photography Forum; the Aviation Forum; Hollywood Hotline; RockNet; Biorhythms; and the Missing Children Database. RLE graphics of weather radar maps and financial charting also are available.

To send and receive RLE graphics, members' computers must be equipped with software from CompuServe's VIDTEX line, which uses an error-free communications protocol to perform data transfers. Members without VIDTEX should see Library 1 in the Graphics Support Forum for machine-specific utility programs.

If you have questions about whether or not your software supports RLE or you would like more information about RLE, type GO VIDTEX.

NAPLPS Not as Popular

NAPLPS, developed in the early 1980s by AT&T, is an exchange format that supplies alphageometric graphics that are independent of the resolution power of individual terminals. Nearly any information that can be described by text and pictures can be distributed in NAPLPS.

With NAPLPS, up to 16 colors can be displayed on a single screen. However, like RLE and GIF, NAPLPS works only on those machines that are equipped with special software programs, called decoders.

Because NAPLPS is a language instead of a data format like RLE and GIF, it requires a translator at the delivery site that can interpret NAPLPS commands and paint the images on the screen. NAPLPS, used mainly by the federal government, never caught on with software and hardware developers. Some hardware developers produced NAPLPS workstations and those who own them can, of course, run NAPLPS quite efficiently. The AT&T Sceptre and the Sony VDX series of computers are examples of NAPLPS workstations.

On CompuServe, NAPLPS graphics are run only on the Biorhythms and Financial Charting services. To view NAPLPS images, CompuServe's Professional Connection version 3.1d software or another NAPLPS decoder is required.

GIF Solves Hardware Incompatibility

Just as a speaker at an international gathering requires a translator fluent in his particular tongue, so does each make of computer require a specific type of decoder to overcome hardware incompatibility. To date, GIF (pronounced "jiff") decoders have been developed for the Apple Macintosh, IBM PC and compatibles with CGA, EGA or VGA graphics capabilities, Commodore Amiga and Atari ST machines. According to Jorge Ochoa-Lions, manager of CompuServe's Computer Graphics Development, the differences between decoders are small but important.

"If you look at the source programs for several GIF decoders, you could identify perhaps only 50 of 300 lines of code to be different," he says. "The differences are important ones, though, and that is why a decoder for one type of machine won't work on another."

GIF is used to transfer image data faster. Thanks to its sophisticated algorithm compression, images are compressed and transferred two to eight times faster than would otherwise be possible. The images can be color or

Graphics Resources at a Glance

Examples of different graphics formats can be found in forum libraries and specific graphics services. Curious as to how they compare? See for yourself. (Please note the software limitations for viewing graphics files.)

Run Length Encoded (RLE)*:

Quick Picture Forum	GO PICS
Photography Forum	GO PHOTOFORUM
Aviation Forum	GO AVSIG
Hollywood Hotline	GO HHL-1
RockNet	GO ROCK
Missing Children Database	GO MISSING
Weather Radar Maps	GO MAPS
Financial Charting	GO TREND
Biorhythms	GO GAM-29

*requires CompuServe VIDTEX software

North American Presentation Level Protocol Syntax (NAPLPS):**

Biorhythms	GO GAM-29
Financial Charting	GO TREND

**requires PC3.1d or other NAPLPS decoder

Graphics Interchange Format (GIF):

Weather Radar Maps	GO MAPS
Art Gallery Forum	GO GALLERY
Quick Picture Forum	GO QPICS
Missing Children Database	GO MISSING
Aquaria and Tropical Fish Forum	GO FISHNET
Photography Forum	GO PHOTOFORUM
Autodesk Forum	GO AUTODESK
Apple Users Group Forum	GO MAUG
Atari Users Network	GO ATARINET
IBM Users Network	GO IBMNET
Amiga Forum	GO AMIGA
Aldus Forum	GO ALDUS
Adobe Forum	GO ADOBE

monochromatic and the quality of their resolution can be adapted to the computer graphics hardware. GIF can display up to 256 colors and better-than-TV resolution.

"GIF's purpose," says Ochoa-Lions, "is to make it possible for dissimilar machines to view images online in the same way. GIF was designed to support the transmission and rendering of online images. What that means is that the image is coming from the host computer and is being viewed at that moment. That image might never be in a file. Today most people think of GIF as being a format for viewing images after they've been captured and stored in a file. It is used that way, but that does not take advantage of GIF's most important strengths."

Ochoa-Lions adds that the idea behind GIF was to make it possible to interweave images with other kinds of live online data. "For example," he says, "you might want to show the pictures that come with a news article. The weather maps are another good example of an ever-changing live image. The user might not have any need for the image once it has been viewed, so wouldn't bother to capture it on a file."

To date, only the online weather radar maps use GIF's capability to make graphics data available in real time. CompuServe's Professional Connection 3 for IBM PCs and compatibles and CompuServe's Navigator for the Macintosh are presently the only GIF decoders that capture the real-time weather images.

Although GIF was not designed to be a format for viewing images after they have been captured and stored, Larry Wood, forum administrator of the graphics forums, has successfully built a community around that idea.

"Since its release to the public, GIF has become much more than an online pictorial presentation mechanism," says Wood. "It has become the preferred method of transferring pictorial data between computers with different operating systems. These transfers use GIF as a file format, rather than a data stream format. Its acceptance is worldwide. Most local BBS systems that cater to different computers offer GIF files. The Art Gallery Forum and the Quick Picture Forum offer CompuServe members what is now accepted as the world's largest public library of graphic images (more than 8,000). The future of computer graphics, online or offline, will almost certainly center on GIF."

GIF images also can be found in the Missing Children Database, the Aquaria and Tropical Fish Forum, and the Photography Forum. For machine-specific information about using GIF, see the Macintosh, IBM Users Network, Atari, Amiga and other product-related forums for computers for which GIF decoders are available. GIF support software is available through the appropriate hardware forums or the Graphics Support Forum.

GIF graphics also are used as a sales tool in the Autodesk Forum, a computer-aided design forum run by Autodesk Inc. for engineers, architects and draftsmen. GIF enables these professionals, as well as the dealers who sell to them, to view before they buy the new versions of such software as AutoCAD, a computer-drafting package. Jim Arnold, general manager of CompuServe's Electronic Mall®, says there are similar plans for GIF graphics to be used commercially to enhance sales messages in The Mall.

Ochoa-Lions adds that another goal for GIF developers is to produce decoders that maximize its real-time capabilities. "Picture a product that puts four windows on your screen," he says. "One window shows a weather map, another shows current fluctuations in the stock market, the third shows flight plan information and the fourth shows your stock portfolio—all in real time."

GIF's power is expected to reach far beyond CompuServe. According to Ochoa-Lions, other possibilities include developing GIF products for use on Sun workstations and other types of hardware, and to have GIF validated as a federal government standard. "If that happens," says Ochoa-Lions, "federal government projects will use GIF."

Carole Houze Gerber is a contributing editor of Online Today. *Her CompuServe User ID number is 70007,1215.*

Forum Libraries Loaded with How-to Hints

Forum libraries are a rich source of specific information about computer graphics software and other graphics topics. Listed below is a small sampling of what is available in dozens of library files.

To access a library, first use the correct GO command to enter the forum, then type L and the appropriate library number at the forum function prompt (or select "Libraries" from the forum's main menu).

Graphics Support Forum
(GO PICS)

For information on graphic viewing utilities, especially if you've never worked with GIF or RLE graphics, check PROGS.TXT or PROGS.IBM. Library 1.

See GIFCONV.SIT in Library 1 for a demonstration of GIFConverter, which converts files between GIF and Macintosh formats.

WISGIF.TXT in Library 1 is a question-and-answer file explaining limitations, capabilities and possible applications of GIF.

Texas Instruments Forum
(GO TIFORUM)

TI users will want to browse GIF.EXE (Library 13), an offline GIF decoder that simulates more than the TI Professional Computer's eight native colors. Library 13.

Lotus Forum
(GO LOTUS)

For how-tos on converting GIF and RLE images to Lotus Manuscript, see GIF2BIT.ARC. Library 5.

WordPerfect Support Group
(GO WPSG)

For hints on converting GIF and RLE images to WordPerfect 5.0, see GIF2WPG.ARC in Library 3 (also in Graphic Support Forum Library 4).

Quick Picture Forum
(GO QPICS)

For information on a contest for uploading graphic images, see HOF.TXT in Library 1 of both the Graphics Support and Art Gallery Forums.

Photography Forum
(GO PHOTOFORUM)

For a diagram of how to modify a Durst RCP-20 photo processor, see DURSTS.GIF. Library 6.

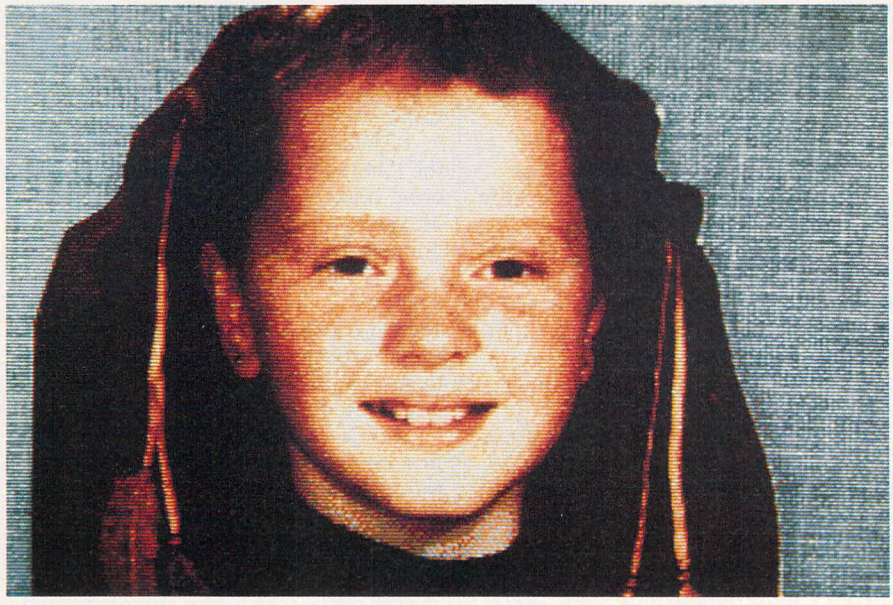
Where to Find GIF and RLE Graphics Libraries

by Carole Houze Gerber

There's something fishy about the location of the largest single graphics library on CompuServe—it's located in the Aquaria and Tropical Fish Forum. "We've been using GIF graphics to provide single pictures of fish and plants," says Forum Administrator John Benn. "If a forum member wants to know what a *Betta splendens* or an Aponogeton aquarium plant looks like, he should be able to locate a GIF file to help him. The most popular GIF files are those using graphics to help explain principles of aquarium maintenance and to identify diseases."

Forum librarian Tony Sena adds that monochromatic image files of fish also are popular. "These files can help hobbyists to identify the fish they are interested in, as well as to compare body shapes, fin placement and other factors to see what that type of fish should look like."

Sena explains that the forum's most popular graphic files convey information that would be difficult to accurately describe through text-only files. One of the forum's most popular files is a graphic example of biological filtration—a chart showing the various biological processes. (See GE0006.GIF in Library 9.) He adds: "A picture really is worth a thousand words."



GIF image closer to photographic quality: *Missing Children Database*

The Graphics Support, Quick Picture, Art Gallery and Photography Forums also contain an enormous number of GIF and RLE images. If you're new to computer graphics, plan to attend the Graphics Support Forum's regularly scheduled conference for beginners on Thursdays at 10 p.m. EDT.

The Photography Forum also offers regular conferences on Sundays at 9 p.m. EDT, although these gatherings are as likely to be related to offline photography as to online graphics. Photography Forum Administrator Mike Wilmer says about 200 GIF images and many more in the RLE format are contained in the forum's libraries.

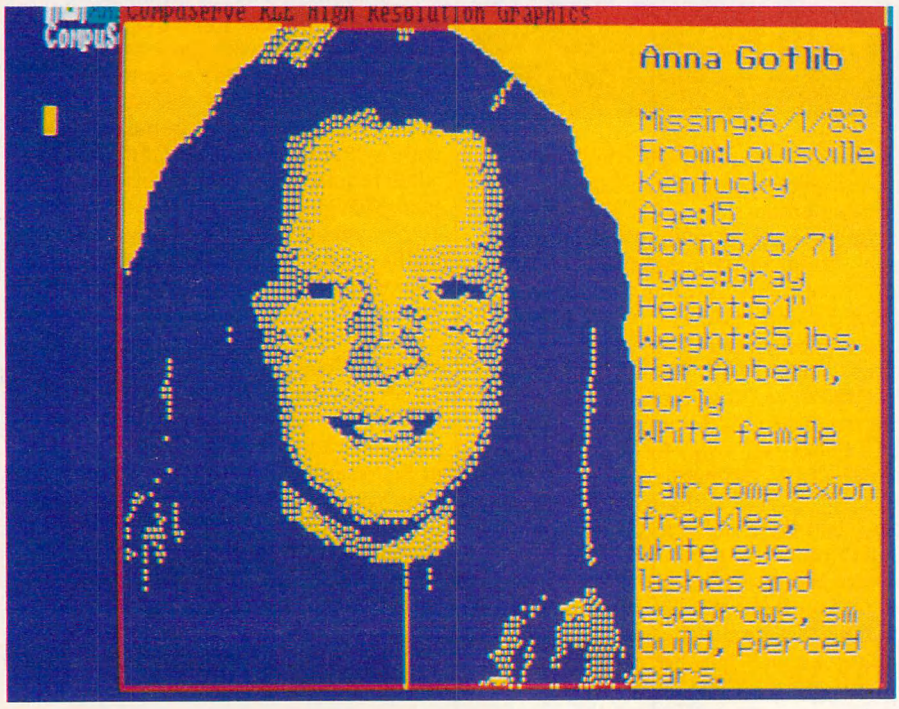
"We also have a few GIF help files in Library 16," he adds. "However, we're not planning to duplicate the efforts they've made in the Graphics Support Forum to support GIF. If someone needs extensive help with GIF, we either send him to the Graphics Support Forum or to the forum that supports the particular computer."

The Quick Picture Forum contains small—20K or less—GIF and RLE files featuring 16 or fewer colors. It was created for members using low-end machines. Its 16 libraries contain images ranging from cars, boats and planes in Library 15 to "lovely ladies" in Library 12. Library 3 showcases a different artist's work each month with images that can be readily viewed with low-end machines. A recent exhibit, for example, illustrated the use of a technique called "greyscale," which enables low-end machine owners to view higher resolution images.

The Art Gallery Forum contains GIF files in a variety of topic categories for high-end graphic users. GIF files in the Gallery can display up to 256 colors and are larger than 20K.

The Graphics Support Forum contains no images. Instead, because its libraries are loaded with how-tos, it is *the* place to go online for the technical scoop on graphics programs and utilities for a variety of computers.

RLE image blurs detail, misrepresents color: *Missing Children Database*



Aldus, IBMNET, Adobe: Support Resources for Desktop Publishing

by Carole Houze Gerber

Conferences, message boards and forum library files that support desktop publishing are "must sees" for CompuServe members seeking information about this popular but often complicated subject. Many product-specific forums are sponsored by the firms that create the products because it is an efficient way to provide fast, friendly support.

A good example is the Aldus Forum (GO ALDUS), which provides online support for desktop publishers seeking tips and advice for using such products as Aldus FreeHand, SnapShot and PageMaker for IBM PC and Macintosh.

Every third Sunday at 5 p.m. EDT, forum members gather in Conference Room 1 to discuss such topics as "PageMaker: Text vs. Graphic Intensive Features," and "Graphic Design: The Transition from Traditional to Electronic Methods."

"Those of us who are regulars on the Aldus Forum are constantly discovering tricks we can employ with PageMaker and FreeHand," says John Tomeny, a graphic designer who began using a Macintosh in his work four years ago. "In fact, there have been several tricks with PageMaker that were first discovered and discussed by forum members before they were published anywhere else."

Here's a sampling of "you heard it first on the Aldus Forum" items: tricks for custom numbering of folios in PageMaker; avoiding corruption of style sheets from a known "backspace bug"; correcting "bad index" errors in style sheets; fixing "problem" EPS files that won't print from PageMaker; and changing a text block to a graphic object using a Scrapbook "place" trick.

Tomeny, who is also active on the Macintosh Personal Productivity, Macintosh Business, PC Vendor Support, AAMSI Medical and Adobe Forums, adds, "I learn about so many different things in the various forums that it is difficult to name them all."

What he is learning is practical information that he has put to good use. "Many new doors have opened for me," says Tomeny, who has 18 years of design experience. In addition to running his own graphic design firm and serving as administrative director for the Society for Medical Decision Making, Tomeny teaches courses in desktop publishing and database development and management through corporate training programs and public seminars. "I also am developing several vertical marketing database packages that will be released soon," he says.

Online Today Reviews Come to Life with GIF

by Ernest E. Mau

Since November 1987, CompuServe's GIF (Graphics Interchange Format) file format has provided a unique, effective way of illustrating *Online Today*'s product reviews while making use of telecommunications facilities. With their computer independence and high resolutions, GIF files used for *Online Today*'s printed edition and the *Daily Edition* (GO OLT) let readers see images of the same screen displays that reviewers see while evaluating products.

In keeping with the adage that a picture is worth a thousand words, such images convey information beyond the written text of product reviews. And they let prospective buyers see how programs might look on their own computers. In short, they serve the same function as pictures in any printed publication, but they are computer files that can be downloaded and displayed electronically.

Online Today uses GIF files in two ways to illustrate reviews. For the print edition, GIF files are transmitted via modem from the review editor's office in Colorado to the magazine's production department in Ohio. Most, but not all, GIF files are created originally with IBM-compatible equipment. The production department decodes and views those files on a Commodore Amiga

equipped with a film recorder that makes color transparencies for the printing process.

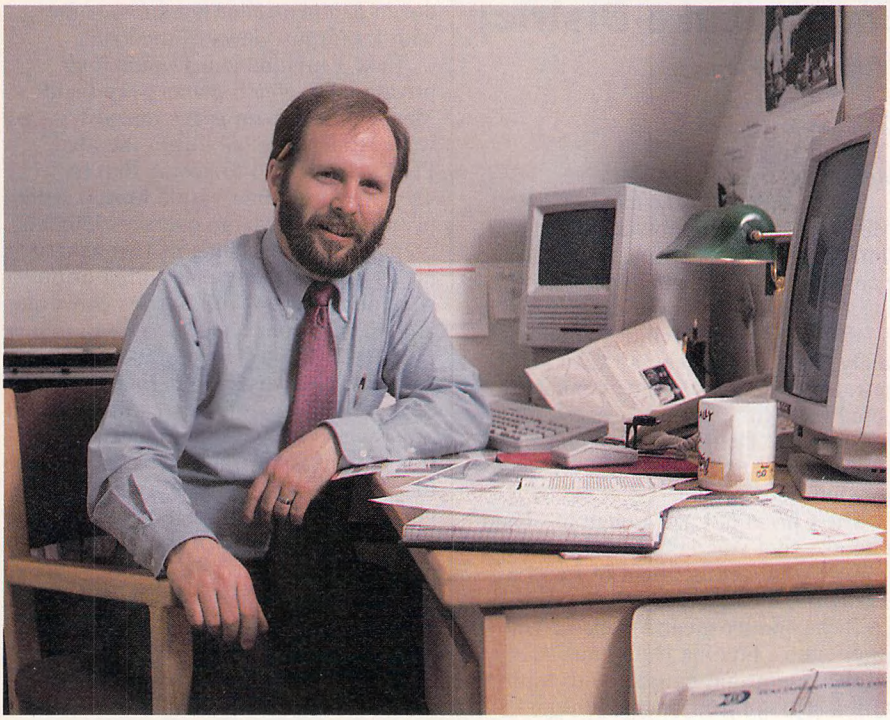
To supplement the printed illustrations, to illustrate printed reviews lacking space for pictures and to illustrate *Daily Edition* reviews (GO OLT200), *Online Today* maintains a library of downloadable GIF files accessible to all CompuServe subscribers. Library 6 of the *Online Today* Forum (GO OLTFORUM), holds those files for five months from the publication of each affected review. Although not all products lend themselves to GIF screen illustrations, those that do have from two to six such files in this Library.

Online Today Forum Library 6 is updated before the first day of each month, so GIF files are available by the time readers see the corresponding review texts. The library is indexed by both product and manufacturer names, while files corresponding to specific reviews can be located by "scanning" or "browsing" for product names or manufacturer names as keywords.

To provide quality pictures without requiring readers to have unusually expensive or elaborate hardware, most GIF files in Library 6 are done at resolutions of 640x350 pixels with not more than 16 colors. They typically correspond to IBM-compatible EGA displays but are viewable with various other systems. *Online Today* tries to stay within resolutions and color combinations viewable on most popular hardware systems. When product characteristics require using GIF files with more than 640x350 pixels or more than 16 colors, readers lacking hardware equal to the task can download special decoding programs from the Graphics Support Forum, say to view a 256-color original GIF file by "dithering" it onto a 16-color display.

All this provides a service whereby readers can see how a reviewed product looks and see what it does instead of just reading about it. So, the next time you're reading a software review in either *Online Today*'s print edition or the online *Daily Edition*, remember to check Library 6 of the *Online Today* Forum. There's an excellent chance you'll find pictures there that could influence your buying decision.

Ernest E. Mau is reviews editor of Online Today.



Larry McDonald

Designer helps novices get the hang of Aldus software: *Tomeny*

As an alternative administrator in the Aldus Forum, Tomeny is a resource for those interested in mastering Aldus products. "I spend a lot of time helping novice users get a feel for Aldus software," he says. "The forum is a friendly place to come for help."

Other desktop publishing forums offer the same type of chatty and immediate support. John Cook, an engineer and programmer who also publishes an in-house newsletter for Mobil Chemical Co., once left a question on the IBM Applications Forum (GO IBMAPP), made a quick trip to the restroom and found the answer waiting for him when he logged in minutes later.

"The forum offers friendly, rapid and comprehensive answers to every sort of question," he says. "The libraries contain all sorts of valuable information. The knowledgeable, intelligent forum administrators just may be the most valuable assets of the entire system."

The IBM Applications Forum is one of 11 forums and services on the IBM Users Network (GO IBMNET). Other network forums of special interest to desktop publishers are the IBM Systems/Utilities Forum (GO IBMSYS), the PC Vendor Support Forum (GO PCVEN), and the IBM Hardware Forum (GO IBMHW).

Like many subscribers, Cook regularly seeks information in a number of online forums. "In some areas, I'm an 'expert'—or at least I am brash enough to answer questions," he says cheerfully. "In others, I'm a learner."

Bill Hinkle, a design engineer interested in graphics conversion for desktop publishing and presentation graphics, is also active in many graphics-related forums. Hinkle, who began using Lotus Manuscript a few years ago to create his firm's user manuals, uses the product extensively for manuals and other documents requiring a mixture of text and graphics.

Now an old hand at graphics and desktop publishing, Hinkle offers the following synopsis of "where to find what" as a guide for others interested in these topics: "There are frequent discussions in the IBM Applications Forum on general issues concerning desktop publishing. The Graphics Support Forum is a good source of graphics information for novices. The forum's libraries have a number of helpful utility programs for specific applications."

Hinkle also recommends investigating product-specific forums such as Aldus, Adobe (GO ADOBE), WordPerfect Support Group (GO WPSG) and Lotus (GO LOTUSB). A GIF developer in the Graphics Support Forum, Hinkle also has written a number of shareware graphics conversion utilities to meet such specific needs as converting GIF and RLE images to Lotus Manuscript, (see GIF2BIT.ARC in Library 5 of the Lotus Forum) and to WordPerfect 5, (see GIF2WPG.ARC in Library 3 of the WordPerfect Support Group; also in Library 4 of the Graphics Support Forum).

Lori Haines, administrator for the Adobe Forum—which supports PostScript, Adobe Streamline, Adobe Illustrator and other Adobe products—says message threads are another excellent way to painlessly pick up information. The topic of one thread that ran for several weeks was, "Is it possible to convert the Adobe screen fonts from the FONT resource type to the NFNT resource type?"

The discussion centered on the various techniques desktop publishers were using to help manage a large number of fonts, avoid font identification conflicts and merge style variations to avoid menu clutter. "Quite a few members chimed in to explain their experiences in detail," says Haines. "Even members who didn't fully understand the technical details were fascinated."

YOU'RE SPENDING HOURS FINDING FACTS

Western Canada's Stunning Lake District

Primitive Country, Fishing Lodges Lure Sportsmen

by Pat Pugh

Moose graze in the tall grasses at water's edge. There's a brisk chill in the air, and patches of red and yellow burst across the lake as the fall leaves turn. It is here, 300 miles north of Edmonton, Alberta, that wise vacationers escape, abandoning civilization for a few days to relax, fish or float through a time warp within the call of loons and large dusty-colored grebes.

Even by Canada's rugged standards, this is primitive country—millions of acres of evergreen forests and secluded lakes and streams. From mid-May when the ice breaks up on the lakes' surface until early October when freeze-up begins again, the lure of visiting a secluded lake—teeming with northern pike, walleye, lake trout and arctic grayling—is a fisherman's dream.

It is here that some of Canada's hardiest sportsmen have established a string of fishing lodges, where one must travel at least part of the way by small aircraft—an eagle's eye introduction, if you will, to the idyllic summer vacation.

But what is a challenge to fishermen is a delight to tourists, who also flock to Alberta's glorious lake country each fall to see the wild fowl, and other times of year to enjoy the surrounding outdoors and water sports.

Lodging

Accommodations at most of Alberta's fishing resorts are clean and simply furnished, yet spartan by American standards. Hanging and storage space is limited where dormitory space is advertised, bath facilities are normally shared and there is rarely daily newspaper delivery. Some comments noted from the Christina Lake Lodge guestbook: "Delighted with all aspects of our visit." "The experience is like an adult Scout camp."

The Christina Lake Lodge has been a choice spot since the founding of the frontier trading post town of Lac La Biche in the early 1900s. Lying between La Biche and the great Athabasca Oil Sands, the Christina is an unusual getaway spot that caters to adventurers with a strong taste for the outdoors.

The sprawling, rustic fishing lodge, nestled in a stand of birch trees, serves as base camp for the twice-daily excursions to the lake's best fishing holes. The comfortable main lodge consists of a huge stone fireplace, dining facility, a recreation room with pool tables, central washrooms and showers, and single- and double-occupancy rooms. There also are six natural log cabins, a spacious private guest house and three dozen camper/trailer hookups, some with rapturous views of the lake.

Lake Christina is a 12-mile-long private lake, which owners Fred and Marge Thom claim is the deepest walleye and pike habitat in the area. Fred is dedicated to seeing that his guests return home with a loaded string of trophy fish. Marge oversees kitchen preparations consisting of two hearty meals that normally end with a dripping slice of pie made with berries collected around the property.

The Christina is one of a dozen full-service licensed guide-oufitters in Alberta that operates its own lodge and offers guests comprehensive fly-in vacations: flight from Calgary or Edmonton, lodging, all meals, free use of boats, guide service and assorted gear, depending on the type of trip planned. (An air strip is two miles away in the tiny settlement of Conklin.)

Besides Christina Lake Lodge (403/559-2224), there are a number of full-service, fly-in adventure lodges that are perfect hideaways for those seeking peace and tranquility. All advertise almost limitless supplies of walleye and northern pike from deep-hole lakes. Lodges have tackle supplies for sale and non-resident sportfishing licenses ($12). Family and group rates are available by request. Here is a sampling of the fishing lodges:

- Winefred Lake Lodge, Conklin, Alberta (403/551-1913). Open year-round, a lake hop (by air) away from

Western Canada's secluded lakes are teeming with fish: *Gristhaven*

Christina Lake. Limited to four rooms in a log ranch with private bath. Licensed (liquor) dining room, TV and fireplace.

- Namur Lake Lodge, Fort McMurray, Alberta (403/743-5255). Six log cabins with kitchen facilities, dining room and central (shared) showers.
- Gypsy Lake Lodge, Fort McMurray, Alberta (403/743-3176). Open all year, three cabins with kitchens, central showers. Licensed guest lounge area and dining room.
- Andrew Lake Lodge, Andrew Lake, Alberta (403/464-7573). Open spring through fall only, eight log cabins with kitchens, all central guest facilities and licensed dining room.
- Fort Chipewyan Lodge, Wood Buffalo National Park, Alberta (403/697-3679). Set on a commanding outcrop of rock, this lodge offers floor-to-ceiling lakeside views from each of the 10 rooms. All amenities and direct-dial phones. Access by Time Air from Edmonton to Fort Chip or a six-hour boat ride from Fort McMurray on the Athabasca River.

Outdoor activities

Although fishing is the main attraction, summertime vacationers to this Canadian summer wonderland can tailor their outings to involve a variety of activities, including camping, swimming, canoeing and hiking. Exploring Alberta by car or motorhome is the perfect way to combine a trip for the entire family. There are more than 100 campgrounds strategically located along excellent highways servicing national parks and recreation areas. For motor home rental information, call Travel Alberta at 800/661-8888.

And, there's lot of Alberta to explore. The province is almost identical in size to Texas. Edmonton, gateway city to the lake district, is a collection of first-rate theater and shopping—the West Edmonton Mall, with about a dozen department stores, more than 800 other shops, a mile-long concourse and a total size equal to 108 football fields, is the world's largest indoor shopping mall. Shoppers can visit an indoor amusement park featuring submarine rides and Siberian tigers. There's also the world's largest indoor water park, complete with wave pool and slides. A further plus are the more than 500 ethnic restaurants—from Vietnamese to Ukrainian.

If you fail to reel in a big one, Edmonton has that covered, too. Eastwharf Seafoods sells a variety of Canadian freshwater fish, and will flash-freeze and package them for the flight home. (American citizens are allowed to take fresh fish over the border if it is declared upon departure with US customs.)

Planning your fishing trip

A three-day, four-night fly-in trip is recommended to allow enough time to cover both lake and stream fishing (arctic grayling), particularly in late May and early June when both walleye and northern pike are plentiful. Lodge programs are tailored to provide a relaxing vacation with the best of fishing, but will also lock all costs in a fixed rate.

A fishing program includes accommodations, three meals, daily fishing boat and fuel, and roundtrip charter air transportation from Edmonton. Costs are usually based on a minimum of four people and range upwards from $500 per person. Continental Airlines offers service to Calgary from most US cities. Transportation between Calgary and Edmonton is provided by Canadian Airlines in conjunction with Continental. An American passport or voter's registration card is all that is needed to enter Canada.

All of northern Alberta's fishing lodges are accessible by chartered float or land-based plane. Many of these camps have well-groomed runways capable of handling a fair-sized aircraft. Because space in a small aircraft is at a premium, it is advisable to pack as lightly as possible. Most lodges provide a checklist of fly-in gear, specifying exactly what you will need.

Above all it is important to pack insulated clothing and warm rainwear, as lakes can get chilly toward evening. During June and July, the sun stays up through the evening, allowing fishing until midnight.

Sportfishermen in Alberta are commended for conservation awareness and attitude. Many major fishing camps practice the procedure of "catch and release," ensuring good fishing for another time, though there may be no regulations governing fish under or over certain sizes.

A typical day at Christina Lake Lodge, for an example, allows plenty of time to cruise the length of the lake, stopping at various walleye "hiding" beds including mooring at a sandbar for a shoreline lunch. Enthusiastic stream fishermen can expect to net the daily limit of five arctic grayling, but must be prepared for marshland conditions with hip-waders and chopping through dense underbrush.

Northern Alberta claims to have approximately one moose to every four miles, and seeing one while traveling to the recommended fishing grounds is not unusual. Other watery dwellers are Canadian geese, pelicans, whitetail deer, beaver, gulls and several varieties of duck.

For information on more of Alberta's superlative sportfishing destinations, call Travel Alberta at 800/661-8888, or write directly to the Fish and Wildlife Division, 9945-108th St., Edmonton, Alberta, T5K 2G6, Canada.

Alberta's outdoors comes indoors via CompuServe's popular Outdoor Forum. Just GO OUTDOORS and you can read about several destinations ranging from fishing, skiing, camping, and hiking to birding and hunting.

In all, Alberta adds up to a great Canadian family holiday whether you're enjoying nature's bountiful treasures or Edmonton's city culture. There's no limit to the possibilities.

Pat Pugh, formerly special sections editor for The Houston Chronicle *and columnist for* The Omaha World Herald, *is a free-lance travel writer based in Houston, Texas.*

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Lee Foster: In Print, On Disk, Online

by M. William Lutholtz

California-based CompuServe travel writer Lee Foster has come up with what he believes is a "first" in book publishing. The newest edition of his travel guide to the Silicon Valley has been published in three formats: in print, on disk and online.

Readers can buy it as a conventional book, order it from Foster on a computer disk, or access it on CompuServe's Information Service. "This is probably the first book in the history of publishing that's coming out simultaneously in electronic as well as print versions," says Foster.

"If you're a computer user, buying a book on disk makes a lot of sense," he says. "For instance, if you are planning a trip to San Diego, you don't have to lug along a big book that covers all of California. You can print just the parts on San Diego. Also, you can write notes on the printout without destroying the original book."

Readers with laptop computers also like the books-on-disk idea. "Most of them take their computers along when they travel anyway. Having the book on disk means they've got one less thing to pack," he says.

Foster also sees the book on disk as an interactive tool for travelers. "You can copy the files to a blank disk and then include your own notes and travel records about an area, making it something personal with your own recollections and experiences."

Books on disk should be of interest to writers thinking about self-publishing their work. "You don't have to make a commitment to print 10,000 copies of a hardcover book. You can make copies of your book as you receive the orders. Make 10 copies, sell those, then make another 10. That is a tremendous economy of scale for writers."

Foster's interest in computers started when his father bought one of the earliest Apple computers for his Minneapolis business. "He told me that if I planned to do any serious writing, I ought to get one," Foster recalls. "So in 1981 I bought an Osborne—inexpensive and everything I needed in one package."

In 1983 a publishing company offered to pay Foster more money for providing the text for one of his travel books ready to print from disk. "This saved them the expense of typesetting and they were willing to share half of every dollar saved with me."

Michael Jay

A book publishing "first": *Foster*

Foster soon realized that, if publishers preferred to receive books on disk, readers might also see the advantages.

Foster's experiments with online publishing began in 1984 when he contracted with CompuServe to upload 100 articles into a special area of the service called West Coast Travel (GO WESTCOAST). These articles featured major travel destinations in 13 western states, ranging from Los Angeles to Death Valley to the Mount St. Helens volcano.

In 1986 CompuServe added a second feature area, Lee Foster's Adventures in Travel (GO AIT), which includes his writing on international travels in Europe, the Orient and other parts of North America not included in the West Coast Travel section. Here you will find 54 articles on topics such as bicycling through the Netherlands, a tour of Mexico's Cozumel Island and Michigan's historic Greenfield Village.

The articles include general information about the "flavor" of each place, the best ways to get there, historical background on the region, a list of major attractions and side trips to less-known spots, plus addresses and phone numbers where travelers can seek more detailed information.

Foster includes a question-and-answer service in which readers can leave specific questions about a travel location and receive a personal reply from the author. You can even leave suggestions for places you would like to see him write about.

If you are reading an article in the West Coast Travel section, you can move directly to Adventures in Travel by choosing that selection from the main menu of West Coast Travel.

All of Foster's articles are copyrighted, but magazine and newspaper editors who read his work online and want to buy reprint rights are welcome to contact him (the files include his address and telephone number). Most requests for reprint rights still come through conventional channels—from editors who have read his work in print rather than online.

"Part of the problem is that most editors aren't aware that the material is available online," he says. "It's going to take time before they realize the advantages of using online services as a place to look for new material."

Foster, who has been writing since 1971, has 15 books to his credit, including eight travel books. In 1987, his travel writing and photography appeared in 24 magazines and 27 newspapers in the United States and Canada. He says that CompuServe members represent a large audience for his writings.

Foster has made four of his books available on disks. The Lee Foster Travel Disks feature California, Alaska/Canada, Mexico/Hawaii and the Silicon Valley.

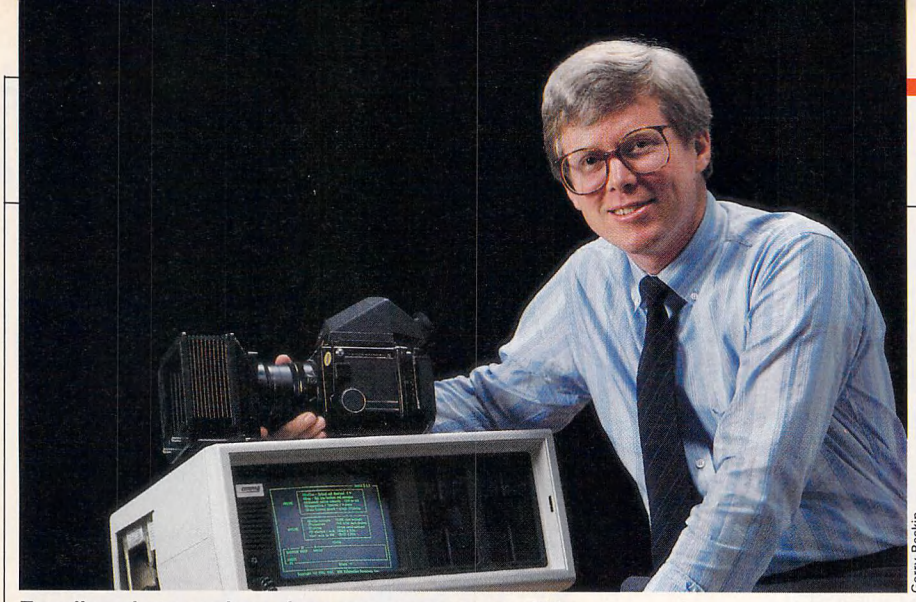
The books on disk are available for IBM/MS-DOS, Apple, Macintosh, CP/M and other computer formats. They can be ordered for $19.95 per "book" directly from Foster, 6774 Manor Crest, Oakland, CA 94618, 415/654-1318; or from Phileas Fogg's, 87 Stanford Shopping Center, Palo Alto, CA 94304, 800/233-FOGG; or from Presidio Press, 31 Pamaron Way, Novato, CA 94947, 415/883-1373. A special collection of 150 travel stories is available from Foster for $150.

Unlike conventional books, Foster makes annual updates to the books on disk, which are offered to readers as they are ready. "This cuts down on the six months' lead time required for conventional book publishing," he says. "It means readers get the information while it is current."

He even has an arrangement in which readers can order their own "custom books" by selecting up to 10 articles of their choice from Foster's list of 150 travel areas. He will assemble the book on disk and mail it to them.

For those who prefer to get their books the old-fashioned way, the print version of Foster's book on Silicon Valley is published under the title *Making the Most of the Peninsula: a California Guide to San Mateo, Santa Clara, and Santa Cruz Counties* (Tioga Press, P.O. Box 50490, Palo Alto, Calif., 250 pages, $14.95).

M. William Lutholtz is a publications editor and free-lance writer in Indianapolis, Ind. His CompuServe User ID number is 70127,2546.



Gerry Baskin

Traveling photographers share camera concerns: *Wilmer*

Camera Equipment Tips in Photography Forum

by Brian D. Monahan

For travelers, one of the worst experiences is to arrive at an historic or picturesque site, and realize that "I forgot the camera." Photographs are a key component of any successful trip. Without them, the trip ends the day you arrive home; with them, it lives on through the pictures.

As your photography becomes more sophisticated with special lenses and accessories such as tripods, traveling with your camera becomes more complex than dropping a "point and shoot" camera and an extra roll of film into a travel bag.

CompuServe can help. Your first visit to the Photography Forum (GO PHOTOFORUM) sets the scene for future visits. Things are informal there. Forum Administrator Mike Wilmer says, "It's sort of like visiting your neighborhood camera store—except we won't try to sell you a gold-plated Leica." You will find all levels of information in the forum. Professional photographers use the forum to share ideas in what is often a solitary profession. These professionals and the experienced amateurs who frequent the forum are glad to share information with rank amateurs.

Wilmer, a professional photographer with 18 years of experience, says it is always good to check in with the forum before setting off on a trip during which you will be taking pictures. You can get general information on photo opportunities in a particular area as well as specific information such as whether a professional photographer needs a permit to take photographs of certain national sites in Washington, D.C. Recently, a lengthy message thread developed that addressed concerns American photographers had as they traveled to Canada. You will also find basic suggestions such as bring prepaid mailers when traveling in the United States, so some of your pictures are waiting when you get home.

Many people use the opportunity to take a trip as an excuse to purchase a new camera. Even if you are an amateur photographer intending to purchase a simple camera, there is advice available in the forum. For example, many of the new automatic focus cameras will focus on the object that is in front of them. If that object happens to be a window, the camera may focus on the window. So, you should look for an auto-focus camera with a switch that lets you override that feature.

A recent message thread on the forum related common concerns of traveling with a camera. The concern raised most often was the danger incurred when film is X-rayed. Wilmer says the danger is most severe when you subject your film to several X-rays. There is also more likelihood of problems occurring with high-speed film. Nevertheless, as CompuServe regular Robert Fowkes observes, it is always best not to X-ray. If you are purchasing a new travel case, he advises purchasing one with a removable pouch for film. One forum visitor made the simple but wise suggestion of saving time by putting your film in a clear plastic bag so agents can readily see what it is.

For most travelers, it is usually preferable to pack light. Fowkes suggests carrying just two lenses—a 35 to 70mm and a 70 to 210mm. But, if you must carry only one, consider the first.

Another advantage of using the Photography Forum is that it often gives a quick, inexpensive way to reach those who control the industry. If you have a question for Kodak, you can simply leave a message for a company representative at 70007,3204, and you will receive a quick reply.

A collection of camera equipment is usually accumulated slowly. For this reason, it is possible not to recognize its value. Before taking your equipment on a trip, check with your insurance agent or carefully read your policy to determine if your camera equipment is covered. Some policies limit coverage to a small amount, $500 for example, for "unscheduled personal property." You also will want to check if you are covered for "off premises" theft. Many policies, especially ones written for those living in metropolitan areas, exclude such coverage. However, it is usually possible to add a relatively inexpensive rider to your policy specifically covering camera equipment against loss whether you are at home or away.

Forum members' favorite photography spots are varied: historical sites in Washington, Kauai in Hawaii and the Bear Tooth Highway in Montana. Now *there's* one to talk about when you visit the camera store on the Photography Forum.

Brian D. Monahan is associate vice president of Iona College in New Rochelle, N.Y., where he also teaches computer science courses. His CompuServe User ID number is 70007,3000.

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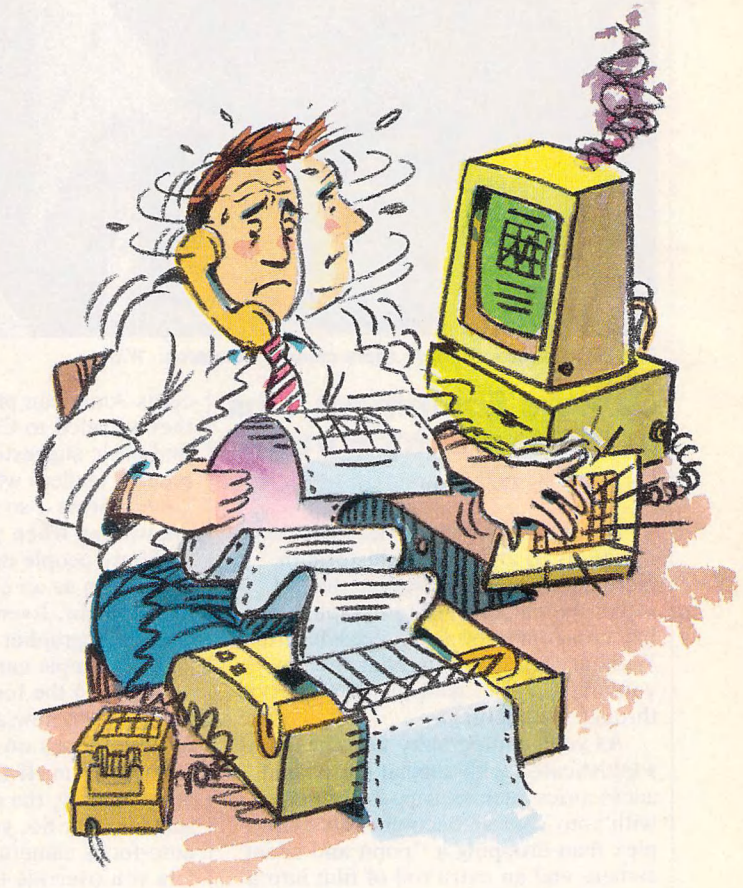

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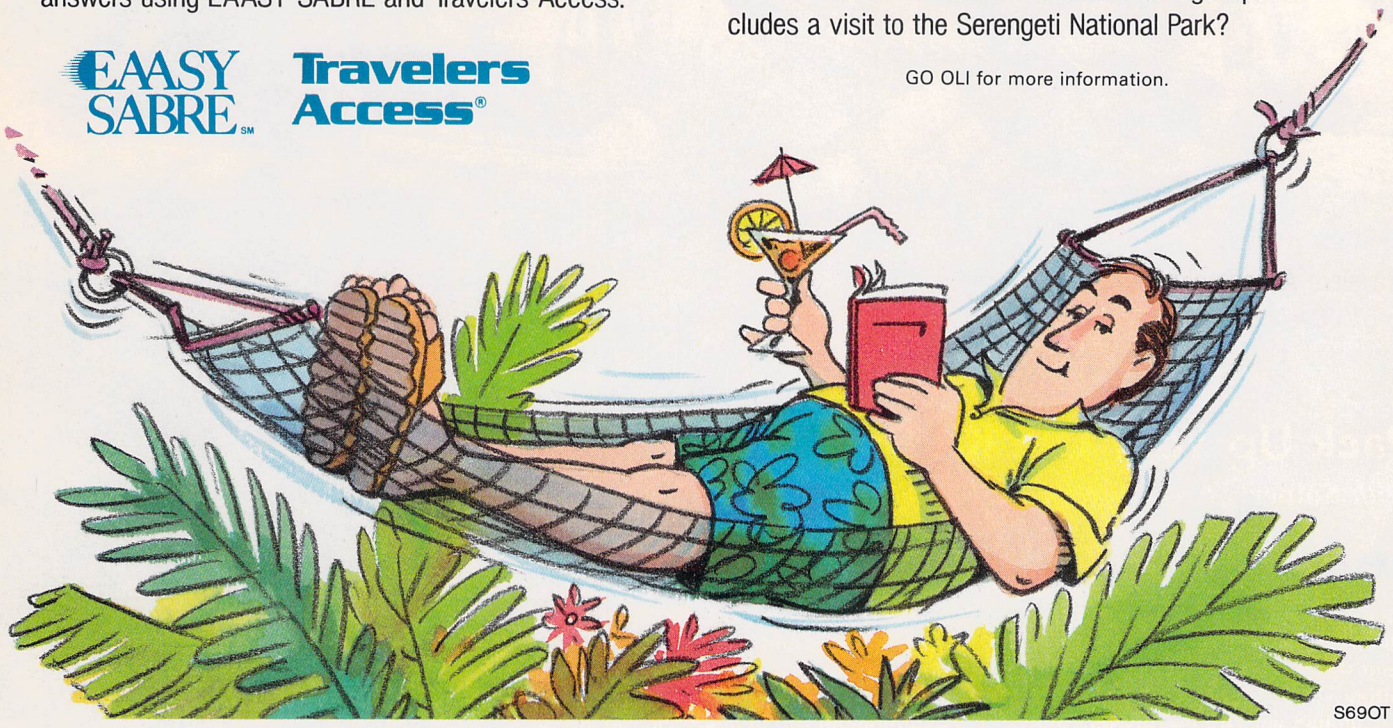

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Pack Up Your Old Kit Bag

With Sniper!, *Every Screen's a Battlefield*

by Michael Houdeshell

Cut off by two German patrols, a full kilometer from the sanctuary of the Allied lines, Corporal Langden crouched amid the rough pine benches in the stifling village church and considered how he had gotten into this spot and what he should do next. ... After his patrol split up as they neared the village, the three men in his group had veered off and crept in from the east, skirting a low stone wall leading up to the piazza.

As they slid along a sparse hedgerow to reach the cover of a house, Langden heard a pop and Martin dropped. A sleet of machine gun fire sliced along the wall at chest level, leaving white pocks on the stones as it went. Kreider turned, made a noise, and something wet slapped Langden. Then Langden was around the corner, in the open, boots slamming on the stones as he ran zigzag, then clambering over another low wall. He caught a glimpse of Jenkins across the piazza standing half in shadow, half in bright sunlight, firing on full auto.

Langden rolled over the wall, dropped prone and scrambled on his stomach toward a jagged breach in the wall of the village church. He tumbled through, dragging chips of masonry along with him into the dark interior, where they clinked against wood and stone. ...

Now at the north window, Langden peered out at the blinding white-stoned piazza through the splintered wreckage of the belltower, which a mortar had clipped this morning. The village was silent. Nothing moved in the close heat. His stomach growled loudly; he had fed it only coffee seven hours ago. He kept checking the safety, then brushed the sweat off his lip with a forearm that smelled like gun oil. He knew he would have to leave soon, even with the risk, because when you stop moving, you're dead.

Welcome to *Sniper!*, the online version of the popular TSR combat board game, which recently made its debut on CompuServe. You've just been playing the Sicily, August 1943 scenario, in which you can be killed, not by a bit of lead, but by a byte of information.

One quibble of wargamers is the tediousness of adding up points, consulting the rule book, shuffling markers about and taking turns. The online version of *Sniper!*, developed by Steve Estvanik (also known for his online version of *Air Traffic Controller*), offers simultaneous play and computer tabulation of scores to better simulate the disorienting fog of war.

The most dramatic difference between the board game and the online adaptation is the switch from sequential play (which, as Estvanik points out, calls to mind the brisk action of chess) to the helter-skelter melee of continuous play. But the replacement of the board game's paper counters (designed to confuse the enemy about your location) with sighting rules, which allow your "men" to look around for targets to draw a bead on, has had an unanticipated positive effect on the quality of play. Says Estvanik of this emergent property of the online game: "One of the hardest things in the online game is to find the enemy. It's quite possible you could just walk around each other. And so you have to spend a lot of time trying to find out where they are, and when you do sight them, deciding if that is one person, a decoy or the main force."

Sniper! currently offers three combat scenarios: Normandy, June 1944; the Ardennes, December 1944; and German-held Sicily in August 1943. For each of these scenarios, you can engage in two different missions. On patrol, you try to scout out No Man's Land, perhaps engage the opponent's forces in a skirmish and return to your area with your reconnaissance report. On the infiltration mission, you attempt to penetrate deep into enemy territory while avoiding confrontation.

Naturally, there's a place for old soldiers to exchange stories of past glory. When you first enter *Sniper!*, and again when you retire from the battlefield, you are conveyed to the Saloon, where you can swap boasts, eye future enemies and watch battles being playing out.

In the Saloon, you also can obtain detailed information about the game. Type /TERRAIN for a briefing on the symbols *Sniper!* uses to represent terrain features and characteristics. You should be well-grounded in these before attempting play. If you want more information on the scenarios, type /SCEN. You also can change your scenario by selecting from the list *Sniper!* displays here. Likewise, type /MIS to switch missions or to brush up on mission objectives. For a complete list of Saloon commands, type /COM. But first you have to go to bootcamp. Type /BOOTCAMP. And move it, grunt!

Complete maps of the various battlefields, suitable for printing, are available by typing /MAP NOCOLOR. Be advised that these are valuable intelligence, which you might want to enhance by shading in walls, brush and building contours with government-issue crayons.

OK, so you're filled with bloodlust and are champing at the bit, and don't give a hang about topography. To leap into the fray, type /OPP * and you will be assigned to the next available opponent. More experienced players can select the skill level of their enemies (denoted by "rank," which you can earn only through many arduous campaigns).

Estvanik recommends a more modest approach for the neophyte, however. To pratice the wargame, type /PRAC and fight on both sides. Or you might go on maneuvers against the computer (/SOLO) and gain battle experience without risk to life or limb. Ultimately, though, your mettle can be tested only against the real thing.

Estvanik offers this heartening advice: "The main thing is to try to survive a couple of games." He also counsels the following:

- When moving, keep your group together, but separate enough, that if you run across the enemy they can't slaughter your forces.
- Perform sightings often, and spread the task around among your soldiers.
- Use the Display Sightings (DS) command to see the enemy's last sighted position and check on the visibility of your men.
- Evade and keep your head down as much as possible. Make use of cover.

Once you reach the combat zone, your screen will be divided into three sections. In the upper left is a map for the portion of the field your men are on. You can look at different sections of the map by designating coordinates or fixing its origin on your current position.

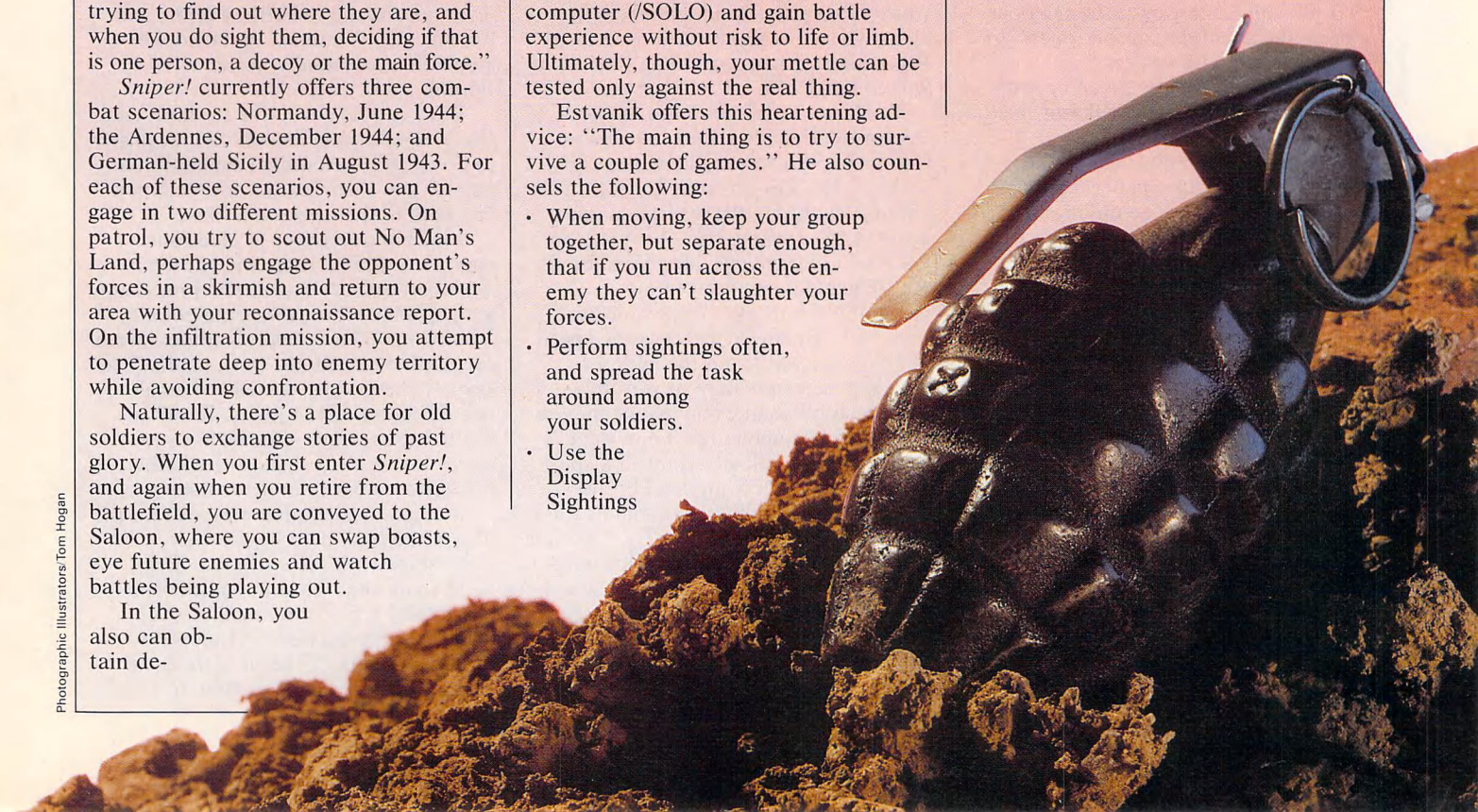
The lower left portion of the screen displays the combat status of each of your men ("units"), including whether they are evading, crawling, ready to panic (which leads to wild flight, a dangerous battlefield behavior) or wounded. Update your unit status display frequently by typing UN.

The bottom right portion of the screen displays information about sightings, radio communications from the enemy, and reports successful hits and disappointing misses.

If you type QH, a quick help list of commands will appear in the upper right of your screen.

One last thing: Don't worry about your confusion and the surplus of rapidly changing information. Even if you knew everything that was going on, you wouldn't have time to think about it. Of course it's not fair. But that's war.

Michael Houdeshell is a free-lance writer based in Columbus, Ohio.



Photographic Illustrators/Tom Hogan

Conley and Line: Bringing Nature Online

by Julie Lalo

In January 1887, George Bird Grinnell sat in his New York City office, took pen in hand, and began the *Audubon Magazine*, a monthly periodical "devoted to extending and building up song-bird protection."

Ten years later, in Denver, Colo., John A. McGuire was beginning his own magazine, *Outdoor Life*, which included travelogues on the wilds of Indiana and features on that radical means of travel—the bicycle.

Audubon Magazine still covers birds, but the primary editorial thrust is expanding the knowledge of all forms of natural history and keeping readers informed on conservation and environmental issues. *Outdoor Life* is oriented toward hunting and fishing families with a love of the outdoors.

"Grinnell and McGuire were pushing back the frontier," *Outdoor Life* editor Clare Conley says of those early publishers who started their magazines when Custer's Last Stand was still a fresh memory.

Both magazines have endured, and their current editors—Conley and *Audubon Magazine* editor Les Line—are still pushing back frontiers. But today, they do it via the Outdoor Forum on the CompuServe Information Service.

Line and Conley visit the Outdoor Forum daily—often several times—to communicate with writers and CompuServe members, keep up with late-breaking news and seek out tips on story ideas.

A query to an editor can be answered within hours, paperless magazine manuscripts are common, and a chat with an editorial contributor or subscriber is done without actually talking.

Line joined CompuServe and the Outdoor Forum in August 1988 after Forum Administrator Joe Reynolds sold him on the idea. "I bought a CompuServe starter kit that night, logged on, and here I am," he says.

The editor of *Audubon Magazine* for almost two dozen years, Line credits the Outdoor Forum with several articles that have appeared in the magazine. "In Section 16, the Environment section, there have been quite a few tips that have led to story assignments." For example, Tony Mandile, an outdoor writer and forum administrator who signs on from Arizona, posted a message about tagging bees with bar codes for identification. "We picked that up and ran it with a photo in one of our columns," Line says. "The Outdoor Forum is a window on the outdoor world. There are forum members in areas where I may not have writers. Who knows when something interesting will come of it?"

Editors' environmental views often polar opposites: *Conley, Line*

Conley, who came to the Outdoor Forum in December 1988, considers CompuServe a service he cannot do without. He logs on from his New York City office during the afternoon and again in the evening from his home in the Pocono Mountains, near Stroudsburg, Pa. "Once you get hooked on CompuServe, it takes over your life," he says. "The beauty of it is the speed of communication and the ability to send messages publicly or privately. Writers don't want every query they're writing to become public knowledge."

Conley has helped establish a special section in the Outdoor Forum devoted to streamlining communication between editor and writer. The Outdoor Life section is home for articles, queries and other manuscript discussions—a place where stories and article queries can be transferred with, as Conley says, "virtually the same privacy afforded by the US mail." He encourages all of *Outdoor Life*'s writers to communicate via the forum.

Line also connects with CompuServe from his New York City office and his nearby home. He checks into the Outdoor Forum and the IBM forums and, because of his interest in music, he stops off occasionally in the MIDI Forum.

Both editors subscribe to the Executive News Service, and check in regularly to download the outdoor and environmental news stories that are "clipped" and held in their personal files.

Line is no stranger to electronic communications, since the National Audubon Society has internal messaging capability throughout the country. "But CompuServe and computers have certainly changed my work habits," he says. "These days, instead of a call to one of my writers, I just send off an electronic message. I don't have to worry about busy signals or whether the writer is out hunting or fishing."

It's an amazing progression from the day, when both men began their editorships with typewriters. "But I don't think that telecommunications will totally replace the mail or overnight delivery services," Line says. Conley concurs. "The only thing we haven't figured out yet is how to trans-

fer slides and photographs.''

Regular users of the Outdoor Forum may be surprised that there is anything that Conley and Line agree on. Both editors can be depended on to liven the forum with their philosophical discussions on topics important to the outdoor world.

Line considers himself a conservationist, which he defines as ''someone who is interested in the wisest use of the resources—even hunting or logging. They aren't mutually exclusive.''

Conley is particularly interested in the issue of oil exploration in Alaska's Arctic National Wildlife Refuge. ''Our country should not back away from Arctic oil development that poses no major threat to the environment. We need that oil for national security—to reduce dependence on foreign oil—and for the preservation of our lifestyle.''

The National Audubon Society has joined with other national conservation organizations to petition President Bush to re-evaluate the Department of Interior's recommendation to Congress that the northwest Alaskan coastal plain be opened to oil development.

In addition to instigating new message threads in the forum by uploading outdoor articles and provocative points of view, Line and Conley are often called upon to discuss a variety of outdoor issues. Forum members can learn what the two editors think about such diverse subjects as logging, birding, fishing, hunting or the politics of environmental protection.

Both men doubt that the message exchanges will change anyone's mind. ''To the extent that people read them and we read their replies, it enhances communication between opposite opinions. But whether it changes any opinions, I can't say,'' Conley says.

''Most of the forum members have an open mind, and if someone has a good argument, it's worth listening to,'' Line says.

As for changing each other's minds, Conley says, ''Les and I have known each other since the world cooled. I'd say we're pretty good friends, but I don't have to agree with him to like him.''

To discuss outdoor topics with Line and Conley as well as the many other informed members of the Outdoor Forum, just GO OUTDOORS.

Julie Lalo is a free-lance writer and assistant executive director of the Pennsylvania Federation of Sportsmen's Clubs and the Pennsylvania Wildlife Federation. Her CompuServe User ID number is 73270,3660.

Tilling the Soil: Good Earth Forum

by David Peyton

It used to be that those who grew vegetables had to own lots of land. But new vegetable varieties and new ways of growing them have overcome this limitation.

CompuServe's Good Earth Forum offers the help you need to coax seeds and plants to produce lots of vegetables in surprisingly small spaces. No previous experience is necessary.

If you've been considering growing vegetables in your own yard, here are some hints:

Before planting, make sure the space gets at least six hours of sunlight a day in mid-summer. That's the minimum for most vegetable varieties.

Next, you need to know the kind of soil you have and what it will need to produce vegetables. Does it have too much clay? If so, water may stand in the soil and drown the crop. Too much sand? It may not hold enough water to supply long-term needs.

Either of these conditions can be corrected by an ingredient called humus—the generic word for decomposed organic material. You can make humus in a compost bin or purchase it at garden stores in several forms, including peat moss and composted, odorless animal manures. Soil made rich with organic material often eliminates the need for chemical fertilizers.

It is advisable to start with a soil test, which probably is offered by your nearest state college or university. Contact your local cooperative extension service for details. A soil report includes the nutrients needed and how to adjust the soil's acidity or alkalinity.

Once the soil is ready, you have to choose the right varieties of vegetables for a small garden. Tomatoes are the most popular of all home-grown vegetables, and they're perfectly suited for the small garden because they can be tied to stakes to create a ''vertical garden.'' One of the best tomato varieties for a small garden is Celebrity, which tends to be bushy, is resistant to diseases and is one of the tastiest new hybrids. These tomatoes can be tied with twine to five-foot wooden stakes on the north side of a garden so the tomatoes will not shade low-growing vegetables.

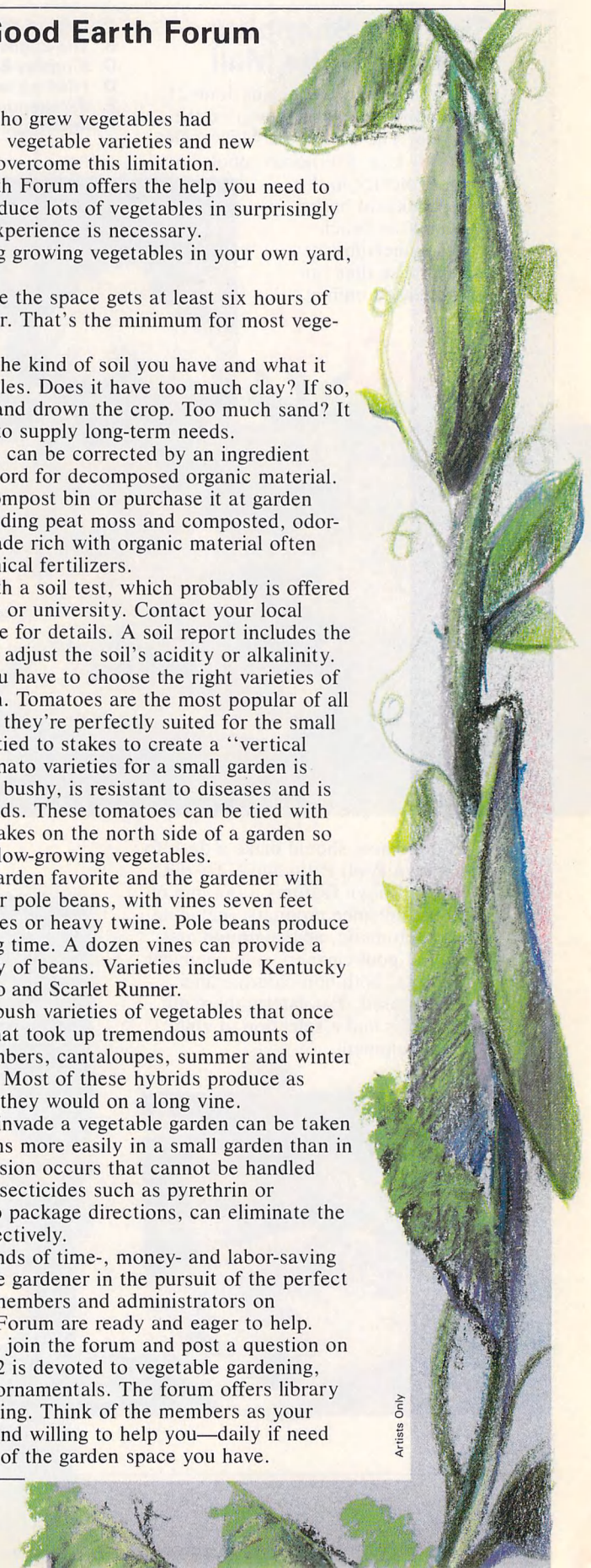
Snap beans are another garden favorite and the gardener with limited space should consider pole beans, with vines seven feet long or longer that climb poles or heavy twine. Pole beans produce an abundant crop over a long time. A dozen vines can provide a family with a season's supply of beans. Varieties include Kentucky Wonders, Blue Lake, Romano and Scarlet Runner.

Research has resulted in bush varieties of vegetables that once grew only from long vines that took up tremendous amounts of ground space, such as cucumbers, cantaloupes, summer and winter squash, and even pumpkins. Most of these hybrids produce as much fruit on the bushes as they would on a long vine.

The creepy-crawlies that invade a vegetable garden can be taken care of through organic means more easily in a small garden than in a large one. If an insect invasion occurs that cannot be handled organically, relatively safe insecticides such as pyrethrin or malathion, used according to package directions, can eliminate the pest problem simply and effectively.

There are literally thousands of time-, money- and labor-saving tips that can help a neophyte gardener in the pursuit of the perfect vegetable factory. And the members and administrators on CompuServe's Good Earth Forum are ready and eager to help.

Type GO GOODEARTH, join the forum and post a question on the message board. Section 2 is devoted to vegetable gardening, and Section 3 is devoted to ornamentals. The forum offers library files on all aspects of gardening. Think of the members as your online county agent, ready and willing to help you—daily if need be—in making the most out of the garden space you have.

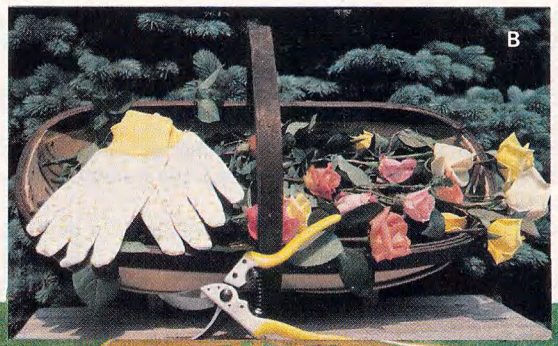


Artists Only

Summer Shopping Begins at The Mall

Summer officially begins June 21, but shoppers can get a jump on the season at The Electronic Mall®. Get ready for lazy afternoons, poolside parties, picnics in the park, backyard barbecues and the beach with summertime merchandise that can be purchased online.

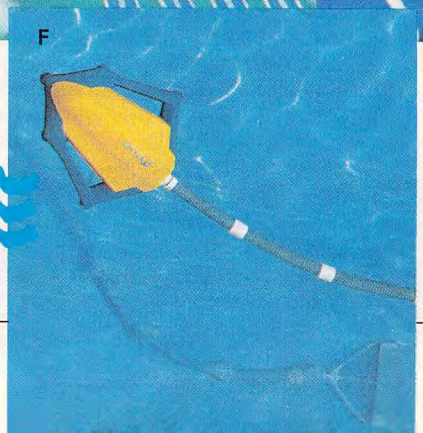
A. Leisure Time Products' play set
B. The English Trug Basket
C. Kingsley-Bate's garden furniture
D. Floating lounge
E. Backgammon floating game set
F. Automatic pool cleaner



Enjoy puttering around the garden? Stop by Williams & Eeden Garden Center (GO WE). Visit The Tool Shed for an array of gardening tools including spades, garden forks, edging knives, hand tools, gardening gloves, watering aids, compost makers and bulb planters. For harvesting nature's bounty, consider The English Trug Basket. Handcrafted in Sussex, these gathering baskets measure 21 by 11 inches and are made of Finnish Birch ply.

New to Williams & Eeden's Mall store is a section featuring outdoor furniture and backyard play structures for children. Free brochures are available for the Kingsley-Bate's collection of solid teak and mahogany garden furniture and for Leisure Time Product's play structures, including clubhouses, treehouses, swingsets and outdoor gym combos. Browse the brochures at home, then order online.

Pool owners should make a dash to Rin Robyn Pool, Patio and Gifts (GO RR). Rin Robyn features a full line of pool maintenance products, including filters, automatic, above-ground and in-ground pool cleaners, and chemical treatments, both non-chlorine and chlorine-based. For safety, there are pool alarms and a selection of child safety equipment.



For fun, from Rin Robyn Pool, there are water games, including volleyball and basketball. Relax on the water in the Tahitian Textra Lounge, the best floating lounge chair. Or for land lovers, try Pawley's original island rope hammock, handwoven today as it was by Capt. John Ward 70 years ago.

Photographic Illustrators/Tom Hogan

(A) Carrera sunglasses (B) Dior sunglasses (C) Perma Focus 2000 binoculars (D) beach racquetball set from Sharon Luggage (E) Huddle Hut (F) Chair 'n' Chaise from Rin Robyn

Heading to the ball game? Take along The Perma Focus 2000 wide-angle binoculars, available at Sharon Luggage and Gifts (GO SL). With a computer-designed optical system, these binoculars automatically focus at any distance from 40 feet to infinity. Take along in an insulated beverage bag, also available at Sharon Luggage and Gifts. It keeps drinks cold for up to six hours and includes a built-in corkscrew.

The beach-bound will find beach chairs at Hammacher Schlemmer (GO HS). For the ultimate in suntanning, try Hammacher Schlemmer's sun-tracking, four-position chair, which has a swivel base that rotates 360 degrees and adjusts to four seating positions from completely upright to fully reclined.

Elite Eyewear (GO EE) features a wide selection of designer sunglasses, many available in prescription lenses. A few of the brand names available online include Carrera, Harley Davidson, Ray-Ban, Serengeti Drivers, Ferrari, Nikon, Bole, Cazal and Christian Dior.

At Bloomingdale's (GO BL) shoppers will discover an assortment of sun care products by Lancaster. Among the products at the cosmetic counter are after-sun mask, sun eye care, Pour Le Corps body bronzing cream, Bronzage Intensive Tan Deepener, sun oil, after-sun shampoo and after-sun shower gel.

To get ready for summertime fun in the sun, GO MALL.

Greg Miller

Meet Jillia Schlingman

Hours: Afternoons and evenings Tuesday through Saturday.
Education: Receiving Bachelor of Arts degrees in journalism/public relations and anthropology from Ohio State University in August. Also associate's degree in commercial music from the Art Institute of Atlanta.
Hobbies: Bicycling, travel and music.
Favorite Online Areas: Since I love to travel, I access the travel databases the most, including Travel Currency Conversion (GO PARS) and Weather (GO WEA).
Most Unusual Call: I especially enjoy talking with international members. Once, while calling back a member in Japan, I reached a non-English-speaking receptionist, but pronounced his name well enough for her to transfer me.
Tip of the Month: Use the FIND command at any CompuServe prompt to find areas of interest. This enables members to quickly discover where to find information about many topics.

Gift of Time

Online Today offers CompuServe members the chance to win 10 hours of free connect time (a $60 value) by writing a 200-word essay on how they use the Information Service.

The essay should be typed double-spaced and sent to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or via an EasyPlex message to 70003,3246. Please include your full name, address and User ID number.

Winning essays are published in *Online Today*.

Graphic Savings

The CompuServe Information Service provides, among other things, a huge library at your fingertips. However, the personal productivity it can offer the user is often underestimated. This is in addition to the savings in time and effort involved in researching information.

In my work, for example, I rely on the print media for specific data with occasional references to illustrations to resolve or confirm questions. I recently searched for an illustration of the space shuttle Challenger's lift-off stage in several bookstores. One manual, which costs $39.95, contained such an illustration, but omitted the information I needed. The next day, I read in *Online Today* that the Art Gallery Forum offered at least two such illustrations. I downloaded both, and the file SHUTTL.GIF provided the exact confirmation I needed.

George Parker
River Vale, N.J.

Ask Customer Service

Q: What is the CompuServe Navigator?

A: The CompuServe Navigator is a Macintosh application program that automates access to the CompuServe Information Service. You can predetermine your online session and have the Navigator access the Information Service for you, saving you time and money. If you are a member who accesses the forums, EasyPlex or Quick Quotes, you can use the CompuServe Navigator.

Q: Why should I use the CompuServe Navigator?

A: With the CompuServe Navigator, you can arrange for downloads, reply to messages, read new messages, obtain Quick Quotes, and search for files or topics of interest in the forums. Once you have set up a session, the program will run on its own, without manual assistance. Once the session is completed and you are logged off of CompuServe, you can read the information in Navigator's review area.

Q: What are the system requirements to use the Navigator?

A: The Navigator requires Macintosh Plus, II, IIX, SE or 512KE System 4.1 or above; a modem (Hayes-compatible recommended); a double-sided 800K diskette and a hard-disk drive, or two 800K double-sided diskette drives.

Q: How do I order the CompuServe Navigator?

A: Type GO ORDER at any CompuServe prompt or call the Telephone Sales and Inquiry department at 800/848-8199 (614/457-0802 outside the United States).

Q: How do I upgrade to Navigator Version 3.0 if I own version 2.0 or 2.1?

A: If you are a registered user, you can order an upgrade kit for $20 plus shipping and handling (GO ORDER). A package containing software and documentation will be mailed to you. Also, you can download the program online (GO NAVIGATOR), and you will be mailed new documentation.

Q: Can I send EasyPlex messages using the CompuServe Navigator?

A: Yes, you can compose the message using the Navigator, or compose it in another word processor and paste it into Navigator's message editor. You can then have the program log on to CompuServe and send the message. It also can download messages waiting for you.

Q: Can I create a session that accesses more than one area?

A: Yes, simply specify the areas you wish to access. One access with the CompuServe Navigator can take care of all of your online business.

Q: How do I access an area not automated by the Navigator?

A: Log on in a terminal mode in which you respond to the CompuServe prompts manually, as you would with most other Macintosh communications packages. You also can create a manual mode tile that is inserted into any part of an automated Navigator session.

Q: What graphics capabilities are supported by the Navigator?

A: The CompuServe Navigator supports GIF graphics. You can view pictures online or offline. Color Weather Maps, for example, can be viewed or downloaded with the Navigator.

Q: Where can I get information or assistance with the program?

A: Type GO NAVIGATOR at any prompt or, if you have a question not addressed by this area, leave a Feedback message (GO FEEDBACK) or call Customer Service at 800/848-8990.

ATI's VGA Wonder

Video Adapter Reaches Extended VGA Display Modes

ATI Technologies, Inc.
3761 Victoria Park Ave.
Scarborough, Ontario
M1W 3S2 Canada
416/756-0718

Computers: IBM PC, PC-XT, PC-AT, PS/2 Model 30 and compatibles.
Features: Three-quarter length card; 256K or 512K video memory; self-adjusting to 8-bit or 16-bit computer slots; Microsoft-compatible bus mouse; digital 9-pin and analog 15-pin monitor connections with automatic monitor detection; MDA, CGA, EGA, MCGA, VGA, extended VGA and Hercules Graphics Card modes with improved register compatibility for CGA, EGA and Hercules modes; 1024x768 maximum resolution with 256K video memory; up to 256 colors in 320x200, 640x400, 640x480 and 800x600 modes; 132x25 and 132x44 text displays; includes setup and test software; includes software drivers for various versions of AutoCAD, AutoShade, AutoSketch, GEM, Lotus 1-2-3, Lotus Symphony, Ventura Publisher and Microsoft Windows.
Required Peripherals: Virtually any IBM-compatible monitor, including TTL Monochrome, RGB, EGA, PS/2 Analog, IBM 8514 and multifrequency (e.g., MultiSync) monitors; not all display modes are available on all monitors.
Other Requirements: EGA/VGA-compatible BIOS.
Optional Items: None.
System used for test: 512K VGA Wonder in 16-bit slot of 1024K Proteus 286GTX computer having two diskette drives, one hard disk, two Sysgen DuraPak drives, two parallel ports, two serial ports, NEC MultiSync monitor and Princeton Ultra-14 monitor; running IBM PC-DOS 3.10 at 6 and 12 MHz.
Suggested Retail Prices: $699 for 512K configuration; $499 for 256K user-upgradable configuration.

Reviewed by Ernest E. Mau

I've always liked ATI video adapters and have used several of their cards for years. Now, their VGA Wonder comes along and reaches extended VGA modes.

Using its 9-pin digital port with EGA, RGB or TTL monochrome monitors, VGA Wonder handles conventional EGA, CGA, MDA and Hercules Graphics modes. Using its 15-pin analog port with a multifrequency monitor, VGA Wonder handles all those plus 16-color 640x480, 800x600 and 1024x768 resolutions or 256-color 320x200, 640x400, 640x480 and 800x600 resolutions. However, a 512K VGA Wonder is needed for 256 colors at 640x480 or 800x600 resolutions. PS/2 8514, PS/2 color and PS/2 monochrome monitors display subsets of the multifrequency monitor's modes.

VGA Wonder has no jumpers or switches, so installation is simple. It fits an 8-bit or 16-bit computer expansion slot, for which the card automatically configures itself. An 8-bit slot is appropriate for PC or PC-XT computers, but a 16-bit slot and data path provide faster displays for PC-AT or 286/386 computers.

VGA Wonder configures itself to the connected monitor when powered up the first time, but the configuration is determined by connector pin arrangements and may not always be ideal for a particular monitor. An old NEC MultiSync configured as a PS/2 color monitor, while a new Princeton Ultra-14 monitor configured as a PS/2 8514. Neither provided a full range of display modes, but ATI software let me reconfigure each monitor manually as though it was a MultiSync or MultiSync Plus to access all possible resolutions and colors.

I used VGA Wonder's 9-pin digital port only long enough to see that it worked. Other users may appreciate the digital capability as a first step while upgrading hardware, but I wanted the card's highest capabilities immediately and switched to the 15-pin analog port quickly.

This card uses "interlacing" like IBM's 8514 system for 1024x768 displays and does an excellent job of it. However, not all display modes are available on all monitors. The better the monitor, the better the card's performance. My old NEC MultiSync (not a MultiSync II or MultiSync XL) could get at all modes, but I had to readjust size, position and vertical hold controls whenever display modes changed. While not unusual, that was enough trouble to make me replace the monitor.

A Princeton Ultra-14 monitor worked beautifully, in part because it had a frequency range wide enough to accommodate the VGA Wonder's top 35.5-kHz horizontal and 87-Hz vertical sync signals for analog monitors. And this particular monitor's automatic display adjustments eliminated fiddling with monitor controls for mode changes.

The 512K VGA Wonder is fast. Under ideal conditions, ATI claims it's up to 800 percent faster than an IBM VGA card in a 16-bit slot and up to 400 percent faster in an 8-bit slot. Testing programs I use report operation at 1.96 to 2.8 times faster than a regular PC-AT video card, but other adapters have tested at only a small fraction of the nominal PC-AT video speed.

ATI says VGA Wonder is totally compatible with IBM's VGA hardware architecture at the register level. One test program I tried found no incorrect register values and confirmed full compatibility. Incidentally, the same program said ATI's older VIP card had 136 "incorrect" BIOS register values and wasn't register-level compatible.

I found only one program that didn't like the VGA Wonder. But Sir-Tech's "Seven Spirits of RA" has given me trouble with many video adapters, so I blame the software, not the VGA Wonder card.

New video adapters, especially extended-VGA types, suffer from shortages of software support for their highest displays. It takes time for software developers to provide drivers for new cards, and hardware developers rarely have enough drivers. VGA Wonder is no exception. It handles conventional resolutions up to 640x480 and 16 colors without special considerations, but few commercial programs have drivers in extended VGA modes yet.

ATI's own drivers give specific modes for Autodesk programs, Lotus programs, Ventura Publisher, the Windows environment and the GEM environment. For example, ATI has 800x600 16-color and 1024x768 4-color drivers for Windows but no 1024x768 16-color driver, which hampers many Windows-based graphics products.

I had trouble with ATI's driver installation routine for Ventura Publisher. ATI personnel say it works for them, but I was unsuccessful in ten attempts to install 1024x768 Ventura drivers (800x600 Ventura installations worked). I eventually installed drivers manually, but I only got a 1024x768 noncolor mode to work for Ventura Publisher 2.0.

On the other hand, many programs have 800x560 drivers for ATI's VIP card. Although not recommended by ATI, those often are usable with the VGA Wonder.

With a quality monitor, 800x600 displays are magnificent for Windows and Ventura Publisher. The displays are sharp and free of distortion or flicker.

The 1024x768 mode for Windows puts a lot of information on screen, but the small text on a 14-inch monitor makes mouse pointing difficult, while the lack of color hurts graphics applications. The 1024x768 mode with Ventura Publisher on my monitors has too much distracting shimmer in gray-toned areas like backgrounds and scroll bars, so I prefer the 800x600 display.

VGA Wonder is terrific for viewing CompuServe GIF files with the "VPIC" program from CompuServe's Graphics Support Forum, especially 256-color 320x200, 640x400, 640x480 and 800x600 GIF files. At this writing, "VPIC" is the only GIF decoder supporting VGA Wonder's high modes, but others should become available soon.

VGA Wonder also gives spectacular 256-color 640x480 displays with Digital Vision's color ComputerEyes video digitizer.

A mouse seems an odd accessory for a video adapter, but ATI includes one that emulates Microsoft's bus mouse but plugs into the VGA Wonder. However, I can't do much with it. My computer has numerous external devices and no free interrupts, and all bus mice conflict with my external drives. On less loaded systems, the mouse could be worthwhile.

VGA Wonder is a powerful video adapter. Although not compatible with extended-VGA software drivers for Orchid, Tseng or Paradise cards, it won't be long before program developers provide full VGA Wonder support as they've done for other ATI products. That makes the VGA Wonder a product to grow into instead of outgrowing.

Ernest E. Mau, a full-time, free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of books and articles on microcomputer products and applications.*

Go Online for More Hardware Reviews

The following hardware reviews are available this month in *Online Today Daily Edition* (GO OLT-220).

VGA Wonder "Super VGA" Video Adapter
Manufacturer: *ATI Technologies Inc.*
Computers: *IBM compatibles.*

Executive VGA Video Adapter
Manufacturer: *Princeton Graphic Systems*
Computers: *IBM compatibles.*

Mirror III

Telecommunications Software

SoftKlone Distributing Corp.
327 Office Plaza Dr.
Tallahassee, FL 32301
904/878-8564

Computers: IBM PC, PC-XT, PC-AT, PS/2 and most compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Supplied on 5.25-inch diskettes; also available on 3.5-inch diskettes.
Copy Protection: None.
Required Peripherals: Modem or direct serial connection.
Other Requirements: Minimum 246K RAM (640K recommended for optimum background operation).
Optional Items: None.
System used for test: 1,024K TeleVideo TeleCat 80286 with 40MB hard disk, one 360K diskette drive, one 1.2MB diskette drive, 2MB Intel Above Board, LaserJet Series II printer, Okidata 293 printer and Hayes Smartmodem; running PC-DOS 3.3.
List Price: $99.95

Reviewed by William J. Lynott

There are still occasional references in advertising literature reminding us that Mirror originally was a low-cost clone of Crosstalk XVI. But SoftKlone no longer touts imitation as a major selling point, and with good reason. The latest release, Mirror III, is a sophisticated asynchronous communications program that can hold up its head in any company.

Since its introduction in 1985, Mirror gradually has evolved into an advanced communications program that boasts several sophisticated features not available in the program it set out to imitate.

Most telecommunications programs are easy to learn and use. As advanced features are added, though, it gets harder to master all the capabilities. It is obvious that this was in the minds of the programmers as Mirror III took shape, so the program now has two separate interfaces. One is an easy-to-use, menu-driven format modeled closely after Crosstalk XVI. The second is a custom-designed interface that can be set up to suit the user's needs and preferences.

Once you go through the straightforward, automated installation procedure, you're ready to use Mirror III for basic communications. The first screen you see after installation is the Status screen. It displays the default settings of the primary parameters, as well as the command files supplied with the program. From the Status screen, you can enter commands to change any parameters or to initiate a communications session.

You can initiate a call from the status screen by loading a command file you created in the "newuser" mode or simply by invoking the "learn" command, which will lead you through the process a step at a time. Mirror's dialing directory is a point-and-shoot type that lists communications parameters with the phone numbers.

But plain telecommunications is just the beginning. Mirror III will support access to just about any computerized data communications system and to all public information utilities such as CompuServe and Dow Jones News Retrieval. It can transfer files between mainframe computers and microcomputers or between two microcomputers. Mirror III supports most popular protocols, including Crosstalk, XMODEM, XMODEM Batch, YMODEM, Hayes, CompuServe Quick-B and Kermit. It also provides more than a dozen terminal emulations including the popular DEC VT100 and VT220.

Since most of the better communications programs around today can handle the basic tasks required by the average user, speed of operation is an important variable to be considered when shopping for a program. With that in mind, I conducted a few comparison tests with a plain textfile a little more than 20K. Going online with CompuServe and using CompuServe Quick-B protocol at 1200 baud, I found little difference among three programs I tested. Table A reflects transmission times for the tests.

Table A
****
CompuServe Quick-B Upload
Times In Seconds

Professional Connection 3	**94**
ProComm Plus	**98**
Mirror III	**99**

****

Mirror III comes with a compression utility add-in called ACT, which compresses file data to reduce transmission times by half or more. However, ACT can be used only between computers equipped with Mirror III, not with

commercial services such as CompuServe. To compare results with and without compression, I conducted more tests using two AT-compatible computers and a null-modem cable connected between the serial ports of each.

I transferred an ASCII file slightly larger than 80K at 4800 baud using several popular protocols. Although some hardware and software combinations will transfer files at up to 115,200 baud, 4800 baud proved to be the maximum rate that was efficient with all test combinations I used. Table B lists the transmission times without ACT file compression.

Table B
****
Uncompressed Direct-Connect
Transmission Times In Seconds

CompuServe Quick-B protocol
Professional Connection 3 184
ProComm Plus 191
Mirror III 179

Xmodem Protocol
Professional Connection 3 192
ProComm Plus 199
Mirror III 188

Kermit Protocol
Professional Connection 3 199
ProComm Plus 208
Mirror III 219

****

Mirror III using CompuServe Quick-B protocol and no compression had the fastest time, while Mirror II using Kermit had the slowest time. In seconds, transmission times look fairly close for all program and protocol combinations, but the fastest and slowest times differ by 18 percent (40 seconds).

Using Mirror's compression feature, transmission time for the same file with each protocol was reduced by more than half. The Mirror III and Quick-B combination again produced the fastest time at 74 seconds or about 41 percent of the time required without compression.

An especially effective Mirror II feature is its "chat" mode. Like ACT, this is an add-in available only if you load it using the add-in command. SoftKlone has used this approach for several features to save disk space for users who may not need every available feature. You can load "chat" so it is automatically available each time you load Mirror, or you can choose to load it only when you need it.

"Chat" mode is handy for real-time "conferences." If you have "teleconferenced," you probably know how incoming and outgoing messages sometimes interfere with each other, causing a garbled mess on the screen. Once "chat" is loaded, you need type only "CH ON" to split the screen so that incoming and outgoing messages are displayed in separate windows.

The list of Mirror III features is too long to detail each one here, but they include a capture buffer, text editor, auto-dialing, auto-answering, password protection and a built-in macro capability.

Another important feature is Prism, a powerful script programming language that lets you automate virtually any Mirror III function.

Prism is the most elaborate programming language I've seen in a communications package. That's both good and bad news. While it greatly enhances Mirror's power and effectiveness, Prism, like any powerful programming language, requires an investment in time to learn to use properly. It is not especially difficult, but it is elaborate. Prism comes with its own instruction manual, which is especially well organized and written.

The "learn" command provides a comfortable way to ease into Prism. It lets you write a simple log-on program to capture the steps required to log onto another system while you get a "feel" for how it works.

If your communications needs are limited to the basics, you may never need to use Prism, but it's nice to know it's there if you do need it.

Overall, Mirror III is about as complete a communications package as you will find in today's market. At $99.95, I consider it one of the best bargains around.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

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Merrill Lynch	97	195	356
Prudential Bache	91	190	398
Shearson Lehman Hutt	80	200	415
Paine Webber	85	162	390
Dean Witter Reynolds	94	186	404

(Telephone Survey 1/89.)

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Wordbench:

The Tool for People Who Write

Addison-Wesley Publishing Co.
Consumer Software Div.
Route 128
Reading, MA 01867-9984
617/944-6479

Computers: Apple IIc, IIe and IIgs; version for IBM-compatibles also is available.
Operating Systems: Apple ProDOS; version for PC-DOS/MS-DOS also is available.
Media: Apple version supplied on four double-sided 5.25-inch diskettes and on two 3.5-inch diskettes; requires at least one 5.25-inch diskette drive (two are recommended) or one 3.5-inch drive.
Copy Protection: None.
Required Peripherals: Apple version needs 80-column monitor.
Optional Items: Additional diskette drive; hard drive; memory expansion card.
System used for test: Apple IIgs with Apple ImageWriter connected to AppleTalk Network.
List Prices: $149 for Apple version; $189 for IBM-compatible version.

Reviewed by Brian D. Monahan

Wordbench isn't a word processor, though it has word processing capabilities. Instead, it is a tool that simulates and facilitates the composing process. A great deal of research has been done to study the composing processes of successful writers, and this program takes into account that research in trying to make it easier for people to write more effectively.

Writers compose in different ways. Some make outlines, some make notes, and some begin writing immediately and go through revisions of multiple drafts.

Instructional texts and programs that attempt to force writers into a "lockstep" may get the writer to follow the process, but it's unlikely that the effort will result in improvement in the writing produced.

A good way to describe Wordbench is to trace the development of a written piece through the program. Begin with a general topic, such as "Careers in Computing." From there, you move to the Wordbench outlining feature, which enables you to create headings and subheadings and call each one up as you need it. Next you can do research using the program's notetaking feature. Your notes are entered into a "Careers in Computing" folder. As you are taking notes, you can use Wordbench to record a reference list of sources.

When the research is complete, you may want to organize your paper. At this point, you can make final changes to your outline and mark the notes you want to include. You then use the program's "writer" feature to pull everything together into a first draft. Standard editing features are available for making changes, including cutting, pasting, inserting and deleting.

If you should suffer from writer's block, Wordbench offers a "brainstorming" feature—a set of creative techniques to help you generate ideas: freewriting, invisible writing, nutshelling and goal setting.

With the freewriting technique, you write rapidly and continuously, without pausing to correct spelling. If you stop typing for more than a few seconds in this mode, a flashing prompt urges you to "keep writing." Like freewriting, invisible writing helps you get thoughts into words, temporarily ignoring concerns about grammar, spelling and punctuation. As you type in this mode, the text is displayed on the screen in asterisks. Later, you can review the text you produced.

With nutshelling, you are encouraged to state the main purpose of your piece in one or two concise sentences. Similarly, the program's goal-setting technique forces you to explicitly state the subject, point of view, audience and purpose of your writing.

When you finish your paper, Wordbench helps you with formatting features expected from a sophisticated word processor, such as a spelling checker and a thesaurus. The program also includes standard text enhancements such as boldfacing, underlining and italics. Finally, Wordbench enables you to automatically generate tables of contents, footnotes and bibliographies.

Wordbench lacks one important feature. The program works only with files created in Wordbench. There is no direct facility to import files from or export files to other word processors. However, Wordbench can import ASCII files, and most word processors processors can create those.

The techniques used by the developers of Wordbench are not new. They are used by most teachers of English at high school and college levels to help students improve their writing. And the techniques used in the program are not fixed rules, but "rules of thumb" that will help many writers.

Wordbench includes excellent, professional-looking documentation, but a great deal of it is in the form of three books and a large reference card. Although this program is published by Addison-Wesley, the documentation indicates that it is the work of the Bank Street College of Education, one of the nation's leading institutions for teacher education.

Those who approach the program with a positive attitude can benefit from insights into their own composing processes. This program does not eliminate the hard work of writing. In fact, it creates more work. Learning how to successfully use it will take a commitment, but once a user has mastered the program, it will help with the writing process.

Brian D. Monahan is associate vice president of Iona College in New Rochelle, N.Y., where he also teaches computer science courses. His CompuServe User ID number is 70007,3000.

Go Online for More Software Reviews

The following software reviews are available this month in *Online Today Daily Edition* by typing GO OLT-230 at any CompuServe Information Service prompt. Many daily-edition and print-edition software reviews are supplemented with GIF graphics that may be viewed in or downloaded from *Online Today* Readers' Forum Library 6 (GO OLTFORUM).

Eight-In-One Integrated Software
Manufacturer: *Spinnaker Software Corp.*
Computers: *IBM compatibles.*

Rapid File Database Manager
Manufacturer: *Ashton-Tate Corp.*
Computers: *IBM compatibles.*

Brooklyn Bridge Parallel File Transporter
Manufacturer: *White Crane Systems Inc.*
Computers: *IBM compatibles.*

ViewLink Menu and File Manager
Manufacturer: *Traveling Software Inc.*
Computers: *IBM compatibles.*

Control Panel Menu System With Communications
Manufacturer: *Promark Ltd.*
Computers: *IBM compatibles.*

Crosstalk XVI

Adds Communications Capability

Crosstalk Communications Division
Digital Communications Associates
1000 Holcomb Woods Pkwy., #440
Roswell, GA 30086-2575
404/998-3998

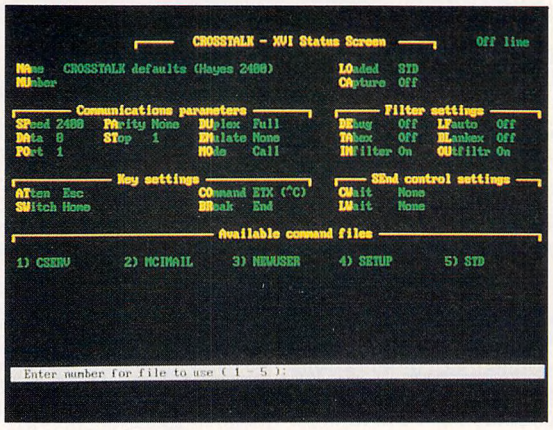
Computers: IBM PC, PC-XT, PC-AT, PS/2 and compatibles.
Operating Systems: PC-DOS and MS-DOS version 2.0 or higher; Microsoft Windows 1.00 or higher, DESQview 2.01 or higher and TopView 1.10 or higher.
Media: Supplied on 5.25-inch or 3.5-inch diskettes.
Copy Protection: None.
Required Peripherals: Modem.
Other Requirements: Minimum 128K RAM (160K for background processing).
Optional Items: Color monitor; printer.
System used for test: 640K IBM PC with 360K diskette drive, 20MB hard disk, USRobotics Courier 2400 modem and Princeton HX-12E color monitor; running PC-DOS 3.3.
List Price: $195 ($30 update charge from older versions).

Reviewed by James Moran

Although some critics say it is overpriced, poorly designed and no longer state of the art, Crosstalk XVI remains the telecommunications software to which all others are compared. Is the newest version (3.7) just a reshuffle of old features, or does this old-timer still have some life left? The answer may depend on the way your computer is used.

Installing Crosstalk XVI onto a hard disk takes only a few moments. After copying the files from the distribution diskette, Crosstalk is configured by answering a few script-generated questions. Because installing teleprocessing software can be one of the most confusing experiences a new user faces, the Crosstalk software and documentation writers can be proud of their work. However, choosing from among 21 classes of supported modems still looks intimidating to novices. Also, it may be too much to expect first-time modem users to immediately realize that "Hayes" and "Hayes-compatible" are the same thing; most will panic when they don't find the brand name of their modem on the configuration list.

Crosstalk XVI startup usually is straightforward, but I was surprised that the original copy of version 3.7 provided for review didn't work. My IBM PC froze and had to be powered-down and rebooted. A call to technical support revealed that the newly implemented background operation mode wouldn't work with a monochrome monitor. After a quick fix, a modified and renamed version (3.7a) performed better.


CROSSTALK - XVI Status Screen
Off line
Name CROSSTALK defaults (Hayes 2400)
Number
Loaded STD
Capture Off
Communications parameters
Speed 2400 Parity None Duplex Full
Data 8 Stop 1 Emulate None
Port 1 Mode Call
Filter settings
Debug Off Lfauto Off
Tahex Off Blankex Off
INfilter On OUtfiltr On
Key settings
ATten Esc Command ETX (^C)
Switch None Break End
SEnd control settings
CWait None
LWait None
Available command files
1) CSERV 2) MCIMAIL 3) NEWUSER 4) SETUP 5) STD
Enter number for file to use (1 - 5):

Familiar CrossTalk status screen: *Version 3.7*

Crosstalk's technical support line was easy to access without long delays for busy signals. Also, the Crosstalk Forum on CompuServe (GO XTALK) proved particularly helpful during off-hours by relaying information to support personnel.

Crosstalk's new background communications capability allows the software to transfer files, await incoming calls, run scripts and perform other communications tasks while you work with a different computer application. By touching a user-selectable "hot key," you can switch your screen between the two running applications.

Not surprisingly, the speed of file transfers taking place in the background depends on what you're doing in the foreground. However, most non-CPU intensive programs such as word processors do not affect and are not affected by Crosstalk's background operations.

Crosstalk XVI has three flavors of protocol support—XMODEM Checksum, Kermit (and the Super Kermit variation) and Crosstalk. The latter can be used only when communicating with another Crosstalk product. For CompuServe users, the B, Quick-B and B Plus protocols are conspicuously absent. If you must have those particular protocols, you'll have to switch to the more comprehensive and more expensive Crosstalk Mk. 4; see file XTLK87.OCT in Library 5 of CompuServe's *Online Today* Readers' Forum (GO OLTFORUM). The Mk. 4 program has been characterized as a "power telecommunications" package and includes such high-powered features as CASL script language, advanced terminal support, network device drivers and numerous file-transfer protocols.

This version of Crosstalk XVI finally implements full path name support. And an enhanced command line editor now enables users to recall, edit and re-enter commands simply by using the Arrow keys.

Another new feature is the call log. Crosstalk can automatically maintain a disk file that can be used for time accounting and billing. Other operational enhancements enables users to specify error thresholds for file transfers and timeout periods. Now, more control can be exercised over events that often caused uncontrolled aborts of certain transmissions.

If you're planning to use Crosstalk with multitasking software, DCA suggests that any optional use of expanded memory above 640K be forsaken. Also, if you have the option, load Crosstalk into the first window because it will run faster there. This could become critical during protocol file transfers because all concurrently executing programs run slower than they would without multitasking. If Crosstalk (or any other communications program) runs too slowly, it will "time out," and the file transfer will abort.

Those who use an older version of Crosstalk almost certainly will want to update to the new version to take advantage of the added features. The extensive terminal support, though unchanged from previous versions, could make Crosstalk XVI attractive to commercial users looking for their first telecommunications software. If you need general-purpose communications software, Crosstalk XVI may meet your needs.

James Moran is vice president of Programming Service Corp., a midwestern consulting and research firm. His CompuServe User ID number is 70007,2253.

Online Book Reviews

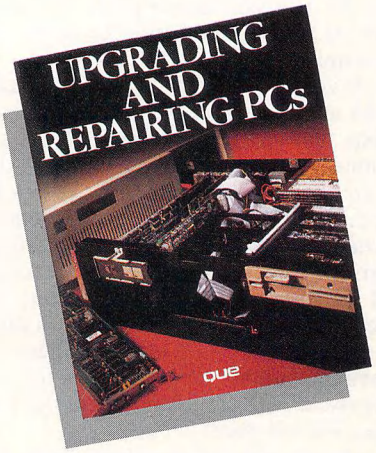
Following are summaries of book reviews available for reading this month in *Online Today Daily Edition*. To read the complete reviews, type GO OLT-240 at any CompuServe Information Service prompt.

Quattro: Secrets, Solutions, Shortcuts

By Craig Stinson
Borland-Osborne/McGraw-Hill, 1988
734 pages, $21.95 (softcover)

The strength of this book is that it offers new insights into the use of the best-selling Quattro spreadsheet, rarely duplicating the original documentation. In fact, reviewer William J. Lynott says this is all you need to take full advantage of Quattro's many capabilities. *GO OLT-5700*

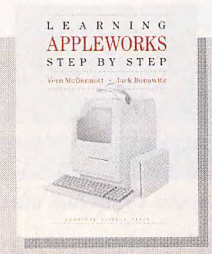
TUNE UP YOUR PC



UPGRADING AND REPAIRING PCs is the ultimate tool for personal computer maintenance. Turn your present system into a high-powered, state-of-the-art machine — and keep it in top shape using practical, expert advice. From QUE. $24.95
GO WB

Walden*COMPUTER*Books

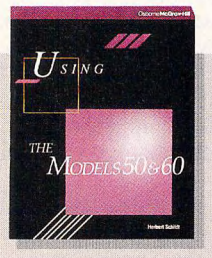
GO OLI for more information.



Learning AppleWorks Step by Step

By Vern McDermott and Jack Bonawitz
Computer Science Press, 1988
297 pages, $24.95 (softcover)

This is a highly structured, easy-to-follow introduction to the popular Apple program. While it does not offer the most comprehensive treatment of AppleWorks available, reviewer Brian D. Monahan says that it is ideal for those users who prefer less detail. *GO OLT-5710*



Using the Models 50 & 60

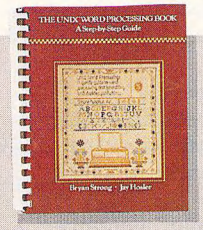
By Herbert Schildt
Osborne/McGraw-Hill, 1988
382 pages, $21.95 (softcover)

This book on the most popular business systems in the PS/2 family of computers is well written and organized, says reviewer Franklyn Jones. Its only drawback is that it is not well focused on the needs of the typical business user. *GO OLT-5720*

The Modem Reference: Complete Guide to Selection, Installation and Applications

By Michael A. Banks
Brady, 1988
530 pages, $19.95 (softcover)

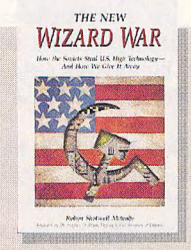
Almost everything you could want to know about a modem and how it can be used is found in this book. Reviewer Robert Sanchez appreciates the author's ability to help the reader master all aspects of telecomputing. Even expert modem users will find useful information. *GO OLT-5750*



The Unix Word Processing Book: A Step-by-Step Guide

By Bryan Strong and Jay Hosler
John Wiley & Sons Inc., 1988
379 pages, $24.95 (softcover)

Reviewer John Edwards calls this book the first and only comprehensive guide to Unix word processing. Using simple, hands-on lessons, the book teaches beginners the tricks of text editing, formatting and desktop publishing. *GO OLT-5740*



The New Wizard War: How the Soviets Steal US High Technology—and How We Give It Away

By Robyn Shotwell Metcalfe
Tempus Books, 1988
264 pages, $17.95

Reviewer Paul A. Gilster says this chilling study of high-tech espionage takes you behind the scenes of the Soviet Union's desperate attempt to acquire American technology. The important need to balance national security with the protection of free trade is thoughtfully considered. *GO OLT-5730*

With CompuServe, you can fax from your computer without a fax board.

Now there's a faster, easier way to send letters, contracts, orders, or any kind of text directly from your computer to any fax machine in the world. Without adding an expensive fax board to your computer and sacrificing an expansion slot.

CompuServe has added the speed and convenience of fax to its long list of business-building services. And the price of faxing on CompuServe makes good business sense, even before you consider all the other benefits.

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To fax from your computer, just type GO FAX at any ! prompt.

CompuServe®

2-D Electronic Braille

Telesensory Systems has introduced two-dimensional reading program for the VersaBraille II and VersaBraille II+.

Called 2-D, the program converts a VersaBraille into a refreshable braille-reading machine, and allows any material that has been transcribed on a computer for embossing to be read on VersaBraille II diskette in the same format. It represents a dynamic way to use an electronic braille display to read both print and braille materials.

For information, contact Telesensory Systems Inc., P.O. Box 7455, Mountain View, CA 94039-7455; 800/227-8418 or 415/960-0920.

Word Mover

Word Mover from Computerese Software is a program for the IBM PC and compatible computers that combines full-featured word processing, flexible document tracking, integrated communications and customizable terminal emulation functions into one integrated program.

Major features include fully customizable commands, keys, help screens, pop-down menus and programmable functions, customizable headers, up to nine open files, spell checker, mail merge, index generation, printing directories and style files.

The introductory retail price is $150.

For information, contact Computerese Software Inc., 654 Metacom Ave., P.O. Box 170, Warren, RI 02885; 401/245-1523.

ViewLink File Organizer

Traveling Software has introduced ViewLink, which automatically identifies the applications and files present on a personal computer or LAN during installation and initially presents them as a logical set of "views," each of which is associated with any number of "items." Any item can become a view and any view can become an item.

The retail price is $149.95.

For information, contact Traveling Software, 18702 N. Creek Parkway, Bothell, WA 98011; 206/483-8088.

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Department AP, Pueblo, Colorado 81009

Guidelines to Requesting Information Through OLI

Online Inquiry

Online Inquiry is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and type GO OLI at any prompt.

CompuServe Page OLI-1
ONLINE TODAY ADVERTISERS
ONLINE INQUIRY (OLI)
1. OLI Instructions
2. Online Today Display Ads
3. Print Edition Reviews
4. Shopper's Guide Mini-Ads

Display Ads

GO OLI-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at the prompts. OLI will add your User ID number and electronically forward your request to the appropriate advertiser(s). The names, addresses and User ID numbers will also be forwarded via US Mail at the end of each month.

CompuServe Page OLI-160
ONLINE TODAY ADVERTISERS/OLI
1. June 1989 Advertisers
2. May 1989 Advertisers
3. April 1989 Advertisers

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Online Inquiry system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, GO OLI-280 and select the appropriate listing, such as June Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the OLI system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

CompuServe Page OLI-280
REVIEW LISTINGS/PRINT EDITION
1. June Hardware Listings
2. June Software Listings
3. June New Product Listings

Shopper's Guide

GO OLI-70 to get information about *Online Today*'s mini-ad program.

To request information from Shopper's Guide advertisers, follow the instructions outlined in each ad.

CompuServe Page OLI-70
SHOPPER'S GUIDE
1. About Shopper's Guide
2. Rates and Information

***Note:** Additional requests during the same session will not require you to re-enter your name and address.

UPDATE

Billing Records Easier to Review Online

CompuServe's historical and current billing records can be viewed chronologically, beginning with the most recent session. In addition, the billing information is more descriptive with minimal abbreviations when surcharged products are listed. GO CHARGES

CompuServe Anniversary Trivia Contest Coming

Watch for details about CompuServe Anniversary Trivia in *Online Today*'s special July issue. Members who correctly complete the 10-question trivia quiz online in July will be eligible to win prizes, including connect-time credits, *CompuServe Almanac*s and merchandise from The Electronic Mall.

Remember Dad with a Gift from The Electronic Mall®

The Electronic Mall makes Father's Day shopping easier with its Gift Suggestion Guide. Find gift ideas from merchants, such as Hammacher Schlemmer (GO HS), Brooks Brothers (GO BR) and PanSon Electronics (GO PS). Also explore new merchants: Outdoor Outfitters (GO OO) for fishing and camping equipment, and CheckFree (GO CF) for a nationwide personal electronic banking system. GO MALL

CompuServe Upgrades CB Simulator Commands

Talk privately with an unlimited number of people and simultaneously monitor open channels in the CB Simulator. Meet new people around the world, exchange ideas, be entertained and schedule business meetings using the CB Simulator's enhanced commands. Join the CB Club (GO CBCLUB) to take advantage of three pricing plans. GO CB

OAG Introduces Spectacular Sports Specials

Spectacular Sports Specials features packages for major sporting events, including the NCAA Final Four, the Masters Golf Tournament, the Kentucky Derby, Wimbledon, baseball spring training and customized golfing, fishing and hunting trips. Most packages include deluxe accommodations, transfers and event tickets. GO OAG

Automobile Information in Consumer Reports

The Consumer Reports searchable database, which allows you to select 1988 and 1989 vehicles by criteria, such as size, city gas mileage and manufacturer, is available. Review the reports on a selected model for $1, plus applicable connect-time and telecommunication charges. GO CRAUTO

Enhancements for CompuServe Gamers

Sniper!, a multiplayer war game based on the popular TSR board game, enables players to experience simulated World War II infantry combat. Features include a bootcamp tutorial and head-to-head, practice and solo games. GO SNIPER

Modem-to-Modem Game Players' Challenge Board enables owners of selected modem-to-modem computer games to find opponents online. It also offers the latest games information from their publishers. GO CHALLENGE

The Game Vendors' Forum has been renamed the Game Publishers' Forum (GO GAMEPUB) to more accurately reflect the forum's topics. In addition, the CompuServe games menus have been updated for easier access. GO GAMES

Movie Fans Follow Films Online

Cineman Syndicate features reviews of movies, books, videos and music. The Searchable Movie Guide can be viewed by movie title, lead actor or actress, and type of movie. More than 1,000 film reviews are in Cineman's archives. GO CINEMAN

Match wits with the updated movie section in Grolier's Whiz Quiz. Participants' knowledge of actors, actresses and awards is challenged in one of 12 categories. GO WHIZ

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